MD Electives

2021-2022

EVMS
Eastern Virginia Medical School

TABLE OF CONTENTS

PURPOSE 4
DIRECTORY: DEPARTMENT CHAIRS AND PROGRAM DIRECTORS 5
DIRECTORY: M4 ADMINISTRATION 6
UNIFIED COMPETENCY OBJECTIVES FOR THE MD DEGREE 7
STUDENT PROMOTION 8
REQUIRED ROTATIONS 9
ELECTIVE ROTATIONS 12
AWAY ELECTIVES 12
CREATING YOUR OWN ROTATION OR AWAY ELECTIVE 13
SCHEDULE SUBMISSION AND APPROVAL 13
SCHEDULE CHANGES 14
GRADING SYSTEM 15
CLINICAL EDUCATION SITE COMPLIANCE 17
VISITING STUDENTS 18
DEPARTMENT OF ANESTHESIA 19
DEPARTMENT OF DERMATOLOGY 24
DEPARTMENT OF EMERGENCY MEDICINE 28
DEPARTMENT OF FAMILY MEDICINE 36
DEPARTMENT OF INTERNAL MEDICINE 48
- *GENERAL INTERNAL MEDICINE* 51
- *CARDIOLOGY* 61
- *CRITICAL CARE MEDICINE* 65
- *ENDOCRINOLOGY* 70
- *GASTROENTEROLOGY* 72
- *INFECTIOUS DISEASE* 74
- *NEPHROLOGY* 77
- *PULMONARY MEDICINE* 79
- *SLEEP MEDICINE* 81

DEPARTMENT OF NEUROLOGY 83
DEPARTMENT OF OBSTETRICS & GYNECOLOGY 86
DEPARTMENT OF OPHTHALMOLOGY 98
DEPARTMENT OF OTOLARYNGOLOGY 103
DEPARTMENT OF PATHOLOGY & ANATOMY 108
DEPARTMENT OF PEDIATRICS 113
DEPARTMENT OF PHYSIOLOGICAL SCIENCES 135

DEPARTMENT OF PHYSICAL MEDICINE & REHABILITATION 137
DEPARTMENT OF PSYCHIATRY & BEHAVIORAL SCIENCES 141
DEPARTMENT OF RADIATION ONCOLOGY AND BIOPHYSICS 150
DEPARTMENT OF RADIOLOGY 153
DEPARTMENT OF SURGERY 158
DIVISION OF ORTHOPEDIC SURGERY 168
DIVISION OF PLASTIC SURGERY 174
DEPARTMENT OF UROLOGY 177
BASIC SCIENCE ELECTIVES 181
INTERDISCIPLINARY ELECTIVES 183

CATALOG PUBLISHED April 12, 2021
Last Updated: 4/12/21

PURPOSE

At EVMS our mission is to achieve "excellence in medical and health professions education, research and patient care. We value creating and fostering a diverse and cohesive faculty, professional staff and student body as the surest way to achieve our mission. Adhering to the highest ethical standards, we will strive to improve the health of our community and to be recognized as a national center of intellectual and clinical strength in medicine."

Medical Education oversees the undergraduate medical school curriculum, ensures regular assessment and evaluation of student progress and monitors curriculum compliance with the nationally recognized accrediting authority for medical education programs, the Liaison Committee on Medical Education.

We are committed to providing you with the best educational opportunities to become the skilled healthcare providers of tomorrow.

In contrast to the first three years of the medical school curriculum, during which students follow an assigned schedule, the M4 year provides considerable flexibility. Although the M4 curriculum contains some required elements, students have considerable latitude to design their educational programs to fit their individual needs and interests. The M4 year is intended to provide each student with a well-rounded educational experience, building on the knowledge and experiences of the first three years and preparing the student for postgraduate training.

The purpose of the Electives Catalog is to serve as a resource to assist students in scheduling and understanding the administrative aspects of the M4 year.

Descriptions of electives appearing in this catalog were prepared by the faculty of the department offering the elective and by Medical Education. At present, the information in this book is accurate to the best of our knowledge. However, policies, procedures, and faculty listings may change from time to time. Any questions regarding descriptive material of a particular elective should be directed to the appropriate departmental elective course director.

Please contact M4@evms.edu with any questions or scheduling concerns.

Jill Haught
VSLO Coordinator

Aileen Shafer
Associate Director, MD Clinical Education Compliance and Support

A. Brooke Hooper, MD
Associate Dean for Clinical Education

Ronald W. Flenner, MD
Vice Dean for Academic Affairs

DIRECTORY: DEPARTMENT CHAIRS AND PROGRAM DIRECTORS

DEPARTMENT	DEPARTMENT CHAIR	PROGRAM DIRECTOR	PHONE
Anesthesia	Timothy Holroyd, MD		757-388-4871
Dermatology	Abby Van Voorhees, MD	Abby Van Voorhees, MD	757-446-0593
Emergency Medicine	Francis Counselman, MD	Barry Knapp, MD	757-388-3397
Family & Community Medicine	Alison Dobbie, MB ChB	John Snellings, MD	757-446-7323
Internal Medicine	Rehan Qayyum, MD, MHHS, SFHM, FAHA	B. Mitchell Goodman, MD	757-446-8910
Microbiology & Molecular Cell Biology	Julie Kerry, PhD		757-446-5660
Neurology	Daniel Cohen, MD		757-388-6133
Obstetrics & Gynecology	Alfred Abuhamad, MD	Stephen Davis, MD	757-446-7470
Ophthalmology	Shannon McCole, MD	Shannon McCole, MD	757-388-2473
Otolaryngology-Head & Neck Surgery	Barry Strasnick, MD	Eric Dobratz, MD	757-388-6229
Pathology & Anatomy	Richard Conran, MD PhD JD		757-446-8978
Pediatrics	C.W. Gowen Jr, MD	Sanaz Devlin, MD	757-668-7272
Physical Medicine & Rehabilitation	Antonio Quidgley-Nevares, MD	Beverly Roberts-Atwater, DO	757-446-5915
Physiological Sciences	Gerald Pepe, PhD		757-446-5616
Psychiatry & Behavioral Sciences	Stephen Deutsch, MD PhD	Shriti Patel, MD	757-446-5884
Radiation Oncology & Biophysics	Mark Sinesi, MD PhD		757-388-3483
Radiology	Lester Johnson, MD PhD	Lester Johnson, MD PhD	757-388-1141
Surgery	LD Britt, MD MPH	Rebecca Britt, MD	757-446-6107
Urology	Kurt McCammon, MD	Kurt McCammon, MD	757-452-3459

DIRECTORY: M4 ADMINISTRATION

TASKS	PERSON	EMAIL	PHONE
Add/Drop Requests Affiliation Agreements Community Faculty Appointments General Scheduling Questions Graduation Requirements/Audits Non-Catalog Course Approvals Affiliation Agreements Category Reviews Faculty Appointment Verification Student Onboarding for Catalog Courses	Aileen Shafer	shaferam@evms.edu	757-446-5050
VSLO/VSAS Application Assistance Background Checks HIPAA Verification Letters Letters of Good Standing OSHA Verification Letters Malpractice Certificate of Coverage Visiting Student Processing	Jill Haught	haughtjm@evms.edu	757-446-5866
Evaluations	Chava Lind	lindcb@evms.edu	757-446-7256
Transcripts	Robin Webber (Registrar's Office)	webberrh@evms.edu	757-446-5806
Career Advising	Rebecca Hastings	hastinrs@evms.edu	757-446-7111
Blood/Bodily Fluid Exposures Immunization Records Medical Clearance for Fit Testing COVID Vaccination	Occupational Health	occhealth@evms.edu	757-446-5870
TB Tests Drug Screens Flu Shots	Student Health	studenthealthclinic@evms.edu	757-446-5700
Situational Awareness and Self Defense Training	Police and Public Safety	PoliceandPublicSafety@evms.edu	757-446-5199
Respirator Mask Fit Testing	Environmental Health & Safety	respiratorhelp@evms.edu	757-446-7928

UNIFIED COMPETENCY OBJECTIVES FOR THE MD DEGREE

The civic and medical leaders who founded Eastern Virginia Medical School envisioned an institution that would champion improving the health of the region. Decades later the school celebrates its record of training physicians who are committed to knowledge and skill and doubly committed to the service of others.

Distinctive characteristics of the institution have evolved over its lifetime:

- Education is central to its mission, not peripheral to the research and clinical enterprises.
- Principles of humanism in medicine and the biopsychosocial model of disease and health are emphasized, promoting the values of altruism and duty.
- An ethic of community service moves students beyond formalized educational settings.
- The learning atmosphere emphasizes cooperation among students, faculty, other health care professionals, local and international care providers and policy makers.
- Lifelong learning and the practice of evidence based medicine are accepted as professional responsibilities.
- The environment promotes collaboration, creativity, leadership and service.

Within the context of this institutional philosophy and culture, the faculty have articulated the following Unified Competency Objectives as the goals and objectives of the curriculum:

https://www.evms.edu/education/medical_programs/doctor_of_medicine/unified_competency_objectives/

STUDENT PROMOTION

In order to graduate from Eastern Virginia Medical School with the M.D. degree, students must satisfactorily complete all elements of the prescribed four-year curriculum.

REQUIREMENTS FOR PROMOTION to M4

- Successful completion of the pre-clerkship and clerkship phase requirements

THE M4 YEAR

The M4 year is designed to promote a well-rounded educational experience (NOT a preliminary internship). A students M4 schedule is comprised of the following:

- 30 weeks of full-time, scheduled, supervised, and evaluated educational experiences are required for graduation. These 30 weeks consist of:
    - » 12 weeks of required electives
        - Acting Internship (4 weeks)
        - Ambulatory Care (4 weeks)
        - Critical Care (4 weeks)
    - » 6 weeks of required courses
        - Community-Engaged Learning Capstone (2 weeks)
        - Transition in Practice Series (TIPS): Residency (4 weeks) Student can only enroll in this course if matched to a PGY-1 residency program. Unmatched students are not required to participate in TIPs Residency and can meet the requirement by successful completion of an additional Acting Internship elective.
    - » 12 weeks of electives
        - Maximum of 8 weeks of longitudinal electives
        - Minimum of 4 weeks in clinical or non-clinical elective outside of specialty
        - Minimum of 4 weeks in clinical elective in spring semester
    - » 12 weeks of unscheduled time for professional development and personal use is built into the M4 year to be used for:
        - Residency Preparation
        - Interviews
        - Vacations/Travel/Personal Time
- Students are allowed to work with faculty to design clinical experiences other than those in this catalog. The process for creating an individualized experience or away rotation is described in detail in this catalog as the non-catalog course process. **Please plan ahead** as there are multiple onboarding requirements and deadlines that must be met.

REQUIRED ROTATIONS

ACTING INTERNSHIP (AI)
Must be completed at EVMS or an affiliated site

Affiliated sites include:
- Bon Secours, Hampton Roads
- Chesapeake Regional Medical Center
- Children's Hospital of The Kings Daughters
- Naval Medical Center Portsmouth
- Riverside Regional Medical Center, Newport News
- Sentara, Hampton Roads
- Veteran's Affairs Medical Center, Hampton

The Acting Internship (AI) elective is designed to encourage senior medical students, regardless of desired future specialty, to assume patient care responsibilities similar to those of an intern (PGY-1 resident), including following the call schedule of an intern in that specialty. Acting interns should carry patients independently of interns and have similar duties, schedules, and didactic sessions as interns. They should take ownership of their patients and be the primary point person regarding their care. They should be increasingly (but safely) independent in their clinical practice but able to recognize when help is needed.

By the end of the acting internship, students should be proficient and efficient in handling the daily tasks of an intern, demonstrating expected behaviors for an entrustable learner including:

- Performing complete and accurate history and physical exams in an organized fashion (UCO 1.1)
- Prioritizing a differential diagnosis following a clinical encounter (UCO 1.2)
- Recommending and interpreting common diagnostic and screening tests (UCO 1.2)
- Entering and discussing orders and prescriptions (UCO 1.2)
- Documenting a clinical encounter accurately in the patient record (UCO 4.2)
- Presenting an oral presentation of a clinical encounter (UCO 4.2)
- Forming clinical questions and retrieving evidence to advance patient care (UCO 3.2)
- Giving or receiving a patient handover to transition care responsibly (UCO 4.2)
- Collaborating as a member of an interprofessional team (UCO 5.2)

AVAILABLE ACTING INTERNSHIPS

Anesthesiology	ANS415				
Emergency Medicine	ERM400	ERM402	ERMTBD		
Family Medicine	FAM417	FAM423	FAMTBD		
Internal Medicine	INT417	INT418	INT493		
OB/GYN	OBG400	OBG402	OBG418	OBG419	
Otolaryngology	OTO404				
Pediatrics	PED405				
Psychiatry	PSY407	PSY412	PSY417		
Surgery	SUR402	SUR404	SUR416	SUR417	ORT413
Urology	URO404				

Other electives that meet the definition of this course category may be submitted for approval to fulfill this requirement using the M4 Non-Catalog Course Request form.

AMBULATORY MEDICINE (AMB)
May be completed at any LCME-accredited school or under the supervision of a physician with an active faculty appointment at an LCME-accredited school

The Ambulatory Medicine (AMB) elective is intended to allow senior medical students to participate in the evaluation and management of patients who present with a wide variety of disorders in an outpatient setting. A minimum of 5 half days per week (or 50% of the rotation averaged over the course of the elective) must be in an Ambulatory setting providing direct patient care (not in a shadowing role).

By the end of the ambulatory medicine elective, students should be proficient and efficient in the management of an outpatient in a clinic setting, demonstrating expected behaviors for an entrustable learner including:

- Performing complete and accurate history and physical exams in an organized fashion (UCO 1.1)
- Prioritizing a differential diagnosis following a clinical encounter (UCO 1.2)
- Recommending and interpreting common diagnostic and screening tests (UCO 1.2)
- Entering and discussing orders and prescriptions (UCO 1.2)
- Documenting a clinical encounter accurately in the patient record (UCO 4.2)
- Presenting an oral presentation of a clinical encounter (UCO 4.2)
- Forming clinical questions and retrieving evidence to advance patient care (UCO 3.2)
- Collaborating as a member of an interprofessional team (UCO 5.2)

AVAILABLE AMBULATORY ELECTIVES

Dermatology	DRM408							
Emergency Medicine	ERM400	ERM402	ERMTBD	ERM410				
Family Medicine	FAM418	FAM424	FAM410	FAM404	FAM426			
Internal Medicine	INT468	INT479	INT476	INT480	INT481	INT482	INT493	INTTBD[1]
	INTTBD[3]							
Neurology	NEU404							
OB/GYN	OBG407	OBG417	OBG401	OBG411				
Ophthalmology	OPH403	OPH400	OPH402					
Orthopedics	ORT403	ORT409	ORT411					
Otolaryngology	OTO403							
Physical Medicine & Rehabilitation	PMRTBD[1]	PMRTBD[2]						
Pediatrics	PED414	PED422	PED402	PED411	PED428	PED409	PED419	PEDTBD
	PED406	PED403	PED412	PED420	PED421	PED416	PED435	
Psychiatry	PSY419	PSY408						
Surgery	PLS403							

Other electives that meet the definition of this course category may be submitted for approval to fulfill this requirement using the M4 Non-Catalog Course Request form.

CRITICAL CARE (CC)
May be completed at any LCME-accredited school or under the supervision of a physician with an active faculty appointment at an LCME-accredited school

The Critical Care (CC) elective is intended to expose senior medical students to the evaluation and management of seriously ill patients, often in intensive-care settings, with the goal of learning how to appropriately evaluate the emergent patient. Students should be increasingly (but safely) independent in their clinical practice and able to recognize when help is needed. Students should work all shifts with their teams, including call. Students may complete virtual critical care modules to meet the objectives of this requirement.

By the end of the critical care elective, students should be able to develop a thorough, systematic approach to the rapid recognition, evaluation, treatment, and disposition of the critically ill or injured patient, demonstrating expected behaviors for an entrustable learner including:

- Recognizing a patient requiring urgent or emergent management (UCO 1.2)
- Prioritizing a differential diagnosis for a critically ill or injured patient (UCO 1.2)
- Recommending and interpreting common diagnostic and screening tests (UCO 1.2)
- Entering and discussing orders and prescriptions (UCO 1.2)
- Presenting an oral presentation of a clinical encounter (UCO 4.2)
- Forming clinical questions and retrieving evidence to advance patient care (UCO 3.2)
- Collaborating as a member of an interprofessional team (UCO 5.2)
- Obtaining informed consent for a test or a procedure (UCO 1.3)
- Performing general procedures of a physician (UCO 1.3)

AVAILABLE CRITICAL CARE ELECTIVES

Anesthesiology	ANS401	ANS403	ANS415		
Emergency Medicine	ERM400	ERM402	ERM410	ERMTBD	*ERM415*
Internal Medicine	INT472	INT491	INT492	*INT494*	
Pediatrics	PED415	PED401	PED422	*PED436*	
Psychiatry	PSY421				
Surgery	SUR404	SUR416	ORT413		

Other electives that meet the definition of this course category may be submitted for approval to fulfill this requirement using the M4 Elective Objectives form.

ELECTIVE ROTATIONS

Many of the electives in the catalog meet the requirements of multiple categories. For example, SUR404 (Shock/Trauma) meets the requirements of the Acting Internship (AI) requirement, the Critical Care requirement, and an elective rotation. However, one course can only be applied to one graduation requirement on your schedule.

- Each 4-week rotation can only be used to satisfy ONE category requirement.
- An M4 rotation MAY NOT be used to remediate a failed M3 clerkship.
- Students may not schedule electives in which they will be directly supervised or graded by preceptors with whom they have any clinical, personal, or familial relationship, including providing health services.
- Students should plan "full-time" electives based on four-week blocks whenever possible. Some electives have two-week options which can be scheduled anytime during a four-week block in coordination with the course coordinator. Electives may not be planned for less than two weeks in duration. (NOTE: Two-week rotations should include **AT LEAST 10 scheduled work days.**)

AWAY ELECTIVES

Your critical care, ambulatory and elective courses may be completed at sites other than EVMS-affiliated institutions; however, your Acting Internship must be completed at an EVMS-affiliated institution listed previously. In planning for away rotations, you should be aware of the following rules:

- Students may do a maximum of 16 weeks of away electives (xxx999 courses)
- Away rotations must be done at an LCME accredited U.S. Medical School or under the supervision of a physician holding a faculty appointment at an LCME accredited U.S. Medical School.
- If your desired rotation is described in the catalog of the host school, that description can be used to complete the EVMS Non-Catalog Course Request form. If the elective is not described in the host school's catalog, students should follow the instructions for developing elective rotations below.
- The majority of U.S. medical schools now require that applications from visiting students be submitted through the Visiting Student Learning Opportunities service (VSLO) managed by the Associate of American Medical Schools (AAMC). The VSLO link is https://students-residents.aamc.org/attending-medical-school/article/about-vslo/. Information is available from the VSLO Coordinator (Jill Haught) or directly from the AAMC. Some medical schools use their own individual applications. Information for each school can be obtained from the school's website.
- Most schools accept applications from visiting students in early spring, but may not confirm your acceptance until late spring or early summer. Most schools, including EVMS, make every effort to accommodate their own students before accepting visiting students. Once you accept an away elective, please submit the EVMS Non-Catalog Course Request form for review and approval.

CREATING YOUR OWN ROTATION OR AWAY ELECTIVE

NON-CATALOG COURSE REQUESTS

1. Identify the site. All non-VSLO away electives require an affiliation agreement between EVMS and the site. Obtaining agreements can be a lengthy process spanning several months. Please plan accordingly and have a back-up plan should the legal teams of EVMS and the proposed site not be able to agree on the terms of the agreement. VSLO electives do not require an affiliation agreement unless the school you are applying to requests one be executed.
2. Consult with your advisor, the appropriate Department Chairman, Associate Dean for Clinical Education, or the Vice Dean for Academic Affairs regarding your goals and objectives.
3. Complete a Non-Catalog Course Request Form describing the skills, knowledge or values/attitudes the student wishes to achieve. Use the following links to help you write objectives: http://www.evms.edu/media/departments/medical_education/New_Blooms_Taxonomy3-7-14.pdf and https://learning-objectives.easygenerator.com/
4. Review the objectives with the proposed course director, who must be a board certified physician or other comparably credentialed individual and must hold a faculty appointment with EVMS or another LCME accredited institution.
5. Submit the Non-Catalog Course Request form at www.evms-m4.net. The proposed elective will be routed for review. The affiliation agreement and faculty status will be verified during the review process.
6. This process should be completed **more than** 30 days prior to the start of the elective when possible.
7. An email notification of final approval must be received prior to participating in any non-catalog elective at EVMS or any other LCME accredited school. If you do not receive an approval for your elective, you may not receive credit for the experience and your graduation date could be affected.
8. The Non-Catalog Course Request is reviewed for the:
   - faculty status of the preceptor
   - status of the affiliation agreement with the site
   - appropriateness of the course category to the course request (confirmation from the Course Director that the course meets the requirements of the selected course category may be required)
   - scheduling approval from the course coordinator/course director
   - course objectives/goals/description
   - dates compared to the student's personal schedule and the EVMS block schedule
9. Please note that submission of the non-catalog course request form is not automatic approval for you to receive credit for the experience. It is one step in a multi-step review and approval process.

SCHEDULE SUBMISSION AND APPROVAL

In reviewing a student's proposed program, the Associate Dean of Clinical Education, Vice Dean for Academic Affairs, and the Medical Education Committee will use the following guidelines:

- The program shall be well conceived and consistent with respect to fulfillment of the educational needs of the student.
- The program shall be commensurate with the capabilities of the student.
- The educational opportunities selected shall be of a quality sufficient to justify the expenditure of time requested.
- The required rotations listed must be included in each student's planned program.

SCHEDULE CHANGES

- Drop requests must be submitted no less than 14 days in advance of the scheduled rotation start date unless there are extenuating circumstances approved by the Associate Dean for Clinical Education. Last minute drops are unprofessional as the preceptors may have made adjustments to their schedule to have you rotate with them. Last minute drops have also prevented another student from completing that elective.

- Courses dropped after the course has begun will receive an "I" for incomplete. The course will either need to be completed at a later date or the student will receive a "W" for withdrawn.

- Add requests other than Sentara must be submitted at least 45 days in advance of the course start date. This allows time for the multi-step review and approval process as well as the student onboarding processes at our affiliated sites (which require their process to be COMPLETED 30 days in advance of your placement). Exceptions are made for short-notice VSLO acceptances with minimal compliance requirements.

- Do not begin an elective that has not been added to your official schedule. Credit for rotations will not be given to students who fail to follow the proper procedures for changing an elective.

- Requested changes are reviewed and approved or disapproved based on the:
    - » balance of the student's schedule and requirements
    - » faculty status of the preceptor
    - » status of the affiliation agreement with the site
    - » appropriateness of the course category to the course request
    - » approval from the course coordinator/course director

  If the request is approved, the student may then proceed to change the rotation. The student must forward confirmation that the elective supervisors for both the elective being dropped and the rotation being added have been notified.

- No changes to schedules will be allowed after December 17, 2021.

GRADING SYSTEM

The requirements for Honors, High Pass, and Pass are based on departmental policy that will be discussed with the students at the initiation of the elective. Honors, High Pass, Pass, or Fail are the only notations sent to the Registrar's Office and appearing on transcripts.

Implications of the Grade Fail: In the event a student fails an elective, the Course Director shall recommend both to the student and the Student Progress Committee, an appropriate remedial program. The recommendation is reviewed by the Student Progress Committee, which makes the final decision regarding the student's academic progress. The Student Progress Committee uses guidelines outlined in the Policies and Procedures for Student Evaluation and Progress regarding promotion of students through the education program at the medical school. At the completion of the approved remedial activity, the student will be given a grade of pass or fail. Both grades (e.g., F/P) remain part of the student's record and transcript.

Some departments allow students who fail the written examination but have passed other portions of the clerkship to remediate the examination before receiving a final grade for the clerkship. Remediation must occur within 2 months or a grade of "Fail" will be assigned.

ELECTIVE PERIODS AND DEADLINES

M4 YEAR STUDENTS - CLASS OF 2022

BLOCKS	DEADLINE FOR CHANGES
TERM 1	
1) July 6 - July 30, 2021	June 22, 2021
2) August 2 - August 27, 2021	July 19, 2021
3) August 30 - September 24, 2021	August 16, 2021
4) September 27 - October 22, 2021	September 13, 2021
5) October 25 - November 19, 2021	October 11, 2021
6) November 22 - December 17, 2021	November 8, 2021
TERM 2	
7) January 3 - January 28, 2022	December 17, 2021
8) January 31 - February 25, 2022	**No changes allowed after December 17, 2021**
9) February 28 - March 25, 2022	
10) March 28 - April 22, 2022 *(EVMS students complete TIPs during this block)*	
11) April 25 - May 20, 2022 **THIS IS AN ADMINISTRATIVE BLOCK FOR REMEDIATION ONLY OR AS APPROVED IN ADVANCE BY THE ASSOCIATE DEAN**	

DEADLINES:
- SCHEDULES: Deadline for completed EVMS M4 schedules: June 4, 2021
- SCHEDULES: Add/Drop form for scheduled changes must be completed by June 7, 2021
- ADVANCED CARDIAC LIFE SUPPORT: must be completed before December 17, 2021

SCHEDULED TIME OFF:
- Winter Break: December 18, 2021 - January 2, 2021
- Please consult the leave policy in the MD Student Handbook when scheduling personal time off, interviews, and courses that overlap (example: a clinical course and a longitudinal course).

GRADUATION: **May 21, 2022**

Note to Visiting Students: 4th Year visiting students are to apply for electives through VSLO. Confirmation of rotations cannot be given before July 2021 to allow first for confirmed placement of all EVMS students.

CLINICAL EDUCATION SITE COMPLIANCE

All 4th year EVMS students will be required to complete pre-rotation compliance requirements for EVMS and Sentara facilities before **April 26, 2021**. Students will be communicated with via Blackboard to facilitate completion.

For electives taking place at facilities other than Sentara, students are required to complete all site-specific requirements a minimum of **30 days prior** to the start of the elective. An email announcement will be sent out through Blackboard when the compliance requirements are available for completion.

Any student who has not completed the required compliance activities will be prohibited from starting their elective year and will be required to formally address the dereliction. This delay may impact your ability to complete the scheduled electives and may impact your ability to graduate on time.

INTERNATIONAL ELECTIVES

International electives offer tremendous insight into healthcare around the world and allow students to cultivate cultural competencies and interdisciplinary skills that will contribute to being an effective, compassionate and patient-centered provider and advocate for underrepresented communities in the United States and worldwide. To register for an international elective through EVMS, students need to follow these steps:

1. Meet with Dr. Alexandra Leader to discuss interests, available programs, goals and objectives.
2. Complete the Global Health paperwork packet including the following EVMS Risk Management forms: EVMS International Travel Application, International Travel Assumption of Risk and Release of Liability.
3. After the EVMS Risk Management forms have been fully approved, Global Health will email an approval to the student. The student can then register for the course.
4. When registering for an international 999 or 998 course, attach the approval email to the objectives form.

Please note: students will not be able to receive credit for international electives when the following have not been completed/are not in place:

- Affiliation Agreement(s) between EVMS and international site(s) or NGO are fully executed
- The course has a Course Director who holds a faculty appointment at an LCME accredited institution
- Travel is approved by both EVMS Risk Management and Global Health
- The course has been approved as part of the student's schedule by the Associate Dean for Clinical Education

VISITING STUDENTS

1. All visiting students must apply online through the AAMC Visiting Student Application Service. If a student contacts a department, the student must be referred to the Visiting Student Coordinator in the Office of Education. Confirmation for Electives is granted through VSAS by the Office of Education.

2. Only persons currently enrolled in an LCME accredited U.S. medical school or COCA accredited U.S. osteopathic schools, are eligible to register for electives at EVMS.

3. Visiting students may take only senior year electives. Third year clerkships are not open to any visiting students. A visiting student must have satisfactorily completed all basic science courses (including physical diagnosis) and, by the start date of the requested elective, the applicant must have completed satisfactorily a minimum of thirty-six (36) weeks of full-time clinical experience during which the student's primary responsibility was to follow patients on a teaching service. This experience must include at least four (4) separate disciplines from among the following: Family Medicine; General Internal Medicine; Obstetrics and Gynecology; Pediatrics; Psychiatry; and General Surgery. Experience in each discipline must be at least four (4) weeks in duration. No elective will be approved for a discipline in which the requisite core clinical experience has not been satisfactorily completed.

4. A complete elective application in VSAS must be submitted for each elective requested and verified by the visiting student's medical school official, authorizing these experiences. Applications must be submitted no later than 60 days prior to the beginning of an elective in order to be considered. Only completed application packets will be reviewed. EVMS will begin reviewing visiting student applications in May 2021. Confirmation for electives will begin in July 2021 and within 10 days from the date your acceptance notification is sent, you must accept or decline the offer in VSAS.

5. Each request for an elective must have the approval of the sponsoring department and the Office of Education

6. Visiting students will only be permitted in blocks 2-10, if space allows. No visiting students will be permitted in block 1. EVMS students have priority for all EVMS elective opportunities.

7. Visiting students are limited to a maximum of twelve weeks of electives at EVMS, except under special circumstances. (Requires approval from the Vice Dean for Academic Affairs)

8. A non-refundable fee of $200.00 must be submitted at least 30 days PRIOR to the start of the rotation. Each visiting student must attend a brief administrative orientation with the Visiting Student Coordinator prior to beginning the elective. A student identification card will be issued by our Human Resources Office, Eastern Virginia Medical School, following orientation.

9. Each student is responsible for obtaining accommodations during his/her stay here.

10. No stipend will be paid by EVMS to visiting students taking electives for credit.

11. EVMS will provide evaluations to the sponsoring institutions, but credit for elective experiences will be given by the institution granting the M.D. degree to the student.

* For assistance with a visiting student application, please contact Jill Haught at haughtJM@emvs.edu or 757-446-5866.

Department of Anesthesia

Specialty Advising: Anesthesiology

Are you competitive?

Competitiveness: Competitive
Mean Step 1/2 score: 233/242 (EVMS anesthesiology graduates 2014-18)
Mean Step 1/2 score: 234/246 (AAMC Charting Outcome Data 2020)
Total number of programs: 215 (153 PGY-1 + 62 PGY-2)
Interview timing: November-January
Away rotations: Highly recommended
Research: Helpful, varies by program

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=1112)	Unmatched (n=117)
Mean number of contiguous ranks	15.1	5.1
Mean USMLE Step 1 score	**234**	**217**
Mean USMLE Step 2 score	**246**	**227**
Mean number of research experiences	3.2	2.8
Mean number of abstracts, presentations, publications	5.2	3.7
Mean number of volunteer experiences	6.9	5.6
Percentage who are AOA members	9.4	0.0
Percentage who have another graduate degree	16.0	26.6

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

ANESTHESIOLOGY Q&A

AT EVMS AND AWAY: If EVMS doesn't have an on-site program, how do I get experience?
M1/M2s: Shadow a preceptor at one of our other affiliated sites.
M3s: If you haven't taken Career Exploration clerkship, you can request Anesthesiology. Also secure a specialty advisor.
M4s: Confirm an anesthesiology elective in Blocks 1 or 2 for experience and a letter writer.

AWAY ROTATIONS: Are away rotations required? Since EVMS does not have an anesthesiology residency program, away rotations are highly recommended. **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day – you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. This is particularly helpful for your competitive "reach" programs.

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	**5:0 (5 students)**	**Data Pending**	**1-3 (range)**	**Blocks 3-5**

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get?
Who should I ask? Three to four: One from an anesthesiologist who can directly attest to your performance in the specialty, and the remaining letter writers from other specialties or from research experience. They should also be able to comment on those strengths and attributes that would make you a strong resident and anesthesiologist.

M1-M2 checklist:

☑ AAMC Careers in Medicine Assessment
☑ LGM / Shadow clinicians
☑ Attend specialty presentations
☑ Join student groups
☑ Begin research projects
☑ M1/M2 summer experience

M3-M4 checklist:

☑ Request an anesthesiology elective for Career Exploration. If unavailable, this block will have time for shadowing.

☑ Research and apply to away rotations.

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/ alumni (check out the back of this sheet for details).

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ **Submit Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

ANESTHESIOLOGY ADVISORS:
EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

COORDINATOR:
Nanette B. 388-4871
Nanette@atlanticanesthesia.com

ANESTHESIOLOGY ALUMNI:
alumni@evms.edu

ASA RESOURCE

ANS415: Anesthesiology Acting Internship

Category: AI, CC, Elective

Course Information

Course Director	Robert F. O'Donnell, MD	**Period Offered**	All Blocks
Location	Naval Medical Center Portsmouth	**Duration**	4 weeks
Main Contact	Robert F. O'Donnell, MD robert.m.odonnell3@navy.smil.mil	**# of Students**	Blocks 1-4: 1 Blocks 5-11: 2
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Priority given to HPSP students July-October. To request this elective CLICK HERE. Click on "Request for Clerkship/Interview" in the bottom left corner

Course Description

During your Acting Internship in Anesthesiology, you will be working one-on-one with a senior anesthesiology resident in operating rooms and procedural sites throughout the hospital. You will be directly assisting in providing general anesthesia and monitored anesthesia care to a wide variety of patients. You will be expected to be an active participant in care and will be given the opportunity to practice life-saving skills including mask ventilation, oral/nasal airway placement, intravenous catheter placement, laryngeal mask airway placement, and endotracheal intubation. You may also have the opportunity to perform or assist with advanced skills such as arterial line, central line, or epidural catheter placement. The skills you gain during this clerkship are broadly applicable to a wide variety of medical fields, but are particularly suited to those medical students who intend to pursue a residency in anesthesiology.

Course Objectives

By the end of week 1, medical students will: Evaluate a patient's airway before surgery; Know the components of a basic room set-up, including IVs, airway, medications, and anesthesiology machine check; Basic mask ventilation skills; Attempt direct laryngoscopy and LMA placement; Attempt peripheral IV placement; Classify a patient based on ASA status.

By the end of week 2, medical students will: Improve direct laryngoscopy, LMA placement, and mask ventilation skills; Begin to understand the pharmacology of different medications used for induction, maintenance, and emergence; Perform a focused pre-anesthesia physical and exam on a patient before surgery; Attempt arterial line placement; Interpret intra-operative monitors.

By the end of week 3, medical students will: Name key indicators for extubation, both clinical and subjective criteria; Explain the concept of MAC, particularly how it varies in different patients; Identify co-morbidities that may affect anesthetic management; Go through the steps of the ASA difficult airway algorithm; Attempt more advanced airway techniques, such as video laryngoscopy;

By the end of week 4, medical students will: Show proficiency in bag mask ventilation; Give a detailed sign out to a resident/CRNA of a patient; Set up a room for the start of a case (including drugs, airway, suctioning, etc); Start to develop an anesthetic plan based on a patient's comorbidities; Give suggestions for interventions during intraoperative management.

Course Specifics

Report First Day

Report to either Ms. Fran Pike or Dr. Jacob Cole at 1200 on the first Monday of your rotation following your Site Orientation (EMR access, ID badge distribution, scrub card access, etc) with our GME office in Building 3, 3rd floor. Our offices can be found in Building 2, 3rd floor of NMCP, following signs for "Anesthesiology Department". Bring clothes to change into scrubs with "OR shoes" that are able to get dirty.

Student Efforts

95% of time inpatient setting
5% of time in trauma/ICU
0% of time in outpatient setting

40 hours/week of direct patient care
5 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation

100% clinical observation

Additional Physicians Participating in Teaching

Derek Foerschler, DO; Jason Longwell, MD; Maureen Higgs, MD; Gregory Booth, MD; Eric Stedjelarsen, MD; Joshua Barnhill, MD; Anthony Bradley, MD; Steven Bronaugh, MD; Phillip Geiger, MD; Marcus Herod, MD; Michael Lee, MD; Victor Rivera, MD; Brian Weimerskirch, MD; Jason Yoder, MD; Jennifer Adams, MD; Maureen McClenahan, MD; E. Scott Vokoun, MD

Site Compliance

Hospital 1: Naval Medical Center Portsmouth

ANS401: Clinical Anesthesia

Category: CC, Elective

Course Information

Course Director	Craig Stopa, MD
Location	Sentara, Norfolk General Hospital
Main Contact	Nanette Broughman Nanette@atlanticanesthesia.com 757-388-4871

Period Offered	All Blocks
Duration	2 weeks
# of Students	2 students
Visiting Students	Yes
Night Call	No
Pre-Requisites/Restrictions	None

Course Description

Practical and theoretical aspects of anesthetic techniques with special emphasis on selection of the anesthetic technique of choice and contraindications to different anesthetic techniques. Selected references recommended to be read before elective.

Course Objectives

1. Evaluate uncomplicated patients for elective, straight forward surgery.
2. Recognize indications for general or regional anesthesia.
3. Understand standard and invasive monitors, including mechanism of action, indications, and troubleshooting.
4. Place I.V. cannulas easily and be aware of operative fluid management.
5. Master airway skills including: mask, ventilation, LMA placement, endotracheal intubation.
6. Understand changes in physiology during general and regional anesthesia
7. Review pharmacology of anesthetic drugs.
8. Be aware of the process of recovery from anesthesia.
9. Understand methods of post-op pain control.

Course Specifics

Report First Day Contact at least two weeks prior to start of elective

Student Efforts

95% of time inpatient setting	36 hours/week of direct patient care
5% of time in trauma/ICU	4 hours/week of didactics
0% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation 80% clinical observation, 20% review of readings

Additional Physicians Participating in Teaching Matthew Schlossberg, MD; Christopher Dupre, MD; Matthew Isenhower, MD; Daphne Lenox, MD; Peter Mosnes, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

ANS403: Pediatric Clinical Anesthesia

Category: CC, Elective

Course Information

Course Director	Andrea Martineau, MD
Location	Children's Hospital of The Kings Daughters
Main Contact	Diana Dominique diana.dominique@chkd.org 757-668-7320
Period Offered	All Blocks
Duration	2 or 4 weeks *(Course length is 2 weeks with the option to extend to 4 weeks for those students planning to go into anesthesiology field.)*
# of Students	1 per block
Visiting Students	No
Night Call	No
Pre-Requisites/Restrictions	Due to the very specialized nature of pediatric anesthesia, previous experience in adult anesthesia is required prior to this elective.

Course Description

The clinical anesthesia elective offered at Children's Hospital of The King's Daughters/Eastern Virginia Medical School will provide the medical student with practical and theoretical aspects of anesthetic techniques as they apply to the subspecialty of pediatric anesthesia with special emphasis on the differences between the adult and the pediatric patient in areas of airway management, fluid management, preoperative and postoperative evaluation and care. There will be hands-on experience with managing the pediatric airway including mask ventilation, insertion of airways, laryngoscopy and intubation; there will also be hands-on experience in the techniques of intravenous access. Participation in resident's didactic session will be optional.

Course Objectives

1. Evaluate the pediatric patient from an anesthetic perspective.
2. Recognize the indications for proceeding or delaying surgery in the child.
3. Set up basic equipment for the administration of anesthesia.
4. Understand the differences between the adult and the pediatric patient from the anesthetic perspective.
5. Gain an understanding of airway management including mask ventilation and orotracheal intubation.
6. Become familiar with the pharmacologic and physiologic effects of anesthesia on multiple organ systems in the anesthetized patient.
7. Have an awareness of the recovery of the pediatric patient from anesthesia.
8. Become familiar with the pediatric patient as a day surgery patient; follow the patient from admission in the Day Surgery Unit to discharge from PACU.

Course Specifics

Report First Day

Report to the OR Charge Desk, 3rd floor CHKD, at 6:45 am. Be ready in scrubs. Ask for the anesthesiologist board runner and introduce yourself. On the first day, go to the Anesthesiology Office to sign-in and obtain the course material.

Student Efforts

10% of time inpatient setting
0% of time in trauma/ICU
90% of time in outpatient setting

35 hours/week of direct patient care
1 hours/week of didactics
2 hours/week of asynchronous activities

Evaluation

100% clinical observation

Additional Physicians Participating in Teaching

Miriam Schoepf, MD; Jessica Kell, MD; Amy Wilborn, MD; Amelia Randall, MD; Liana Hosu, MD; Valbona Kanarek, MD; Andrea Martineau, MD; Anzea Dukes, MD; Mark Polak, DO; Justin John, MD; Christopher Karsanac, MD; Steve DeFreitas, MD; Jeffrey Schubert, DO; Mike Shackleford, DO; David Blakey, MD; Matthias Koenig, MD; Peter Ma, MD; Khaled Dajani, MD; Annelisa Cossu, MD; Nathan Brakke, MD; Lida Nadimi, MD; Steven Zadora, MD;

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

Department of Dermatology

EVMS Dermatology is committed to teaching the next generation of skilled dermatologists. Our faculty lecture at numerous national conferences, conduct research and publish annually in scholarly journals.

In addition to caring for patients at Andrews Hall (on the EVMS campus in Norfolk) and at our Virginia Beach location, our doctors provide care for our nation's veterans at the Hampton Veterans Affairs Medical Center and in underserved clinics at EVMS and Sentara Norfolk General Hospital.

Our residency program is ACGME accredited and is 3 years long. Upon completion of the program, our residents are able to confidently enter private practice or a career in academic dermatology. The department also actively participates in the educational programs for both medical students and physician assistants. This includes the teaching of core courses such as histology, pathology, and clinical skills. Elective clerkships in dermatology, dermatopathology and dermatologic research are offered.

Members of EVMS Dermatology actively collaborate with investigators at EVMS, the Jones Institute for Reproductive Medicine and Old Dominion University to answer questions about the biology of the skin and process of diagnosis. Clinical trials are conducted under the direction of Dr. Abby Van Voorhees with specific areas of research in psoriasis and atopic dermatitis. Dr. Edward Prodanovic oversees research involving cutaneous cancers.

To learn more about the Department, visit https://www.evms.edu/education/schools_institutes_centers_departments/dermatology/

Specialty Advising: Dermatology

Are you competitive?

Competitiveness: Highly competitive
Mean Step 1/2 score: 248/256 (AAMC Charting Outcome Data 2020)
Total number of programs: 151 (14 PGY1 + 137 PGY2)
Interview timing: October-January
Away rotations: Highly recommended
Research: Recommended (specific to dermatology not required)

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=361)	Unmatched (n=64)
Mean number of contiguous ranks	9.9	4.5
Mean USMLE Step 1 score	**248**	**239**
Mean USMLE Step 2 score	**256**	**248**
Mean number of research experiences	5.8	4.9
Mean number of abstracts, presentations, publications	19.0	10.8
Mean number of volunteer experiences	9.4	8.8
Percentage who are AOA members	47.4	28.1
Percentage who have another graduate degree	19.7	24.6

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

DERMATOLOGY Q&A

AWAY ROTATIONS: Are away rotations required? It is highly recommended! **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day – you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. This is particularly helpful for your competitive "reach" programs.

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	**2:0 (2 students)**	**Data Pending**	**2-3 (range)**	**Blocks 3-5**

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Three or four, from the Dermatology chair, and if you have a mentor from a different department who knows you well, that's a good letter to include as well. LoRs reflect not only your accomplishments but your ability to form meaningful relationships with faculty.

PARALLEL PLANS: This is definitely a specialty I want to pursue but I am worried about its competitiveness. You may be advised to do a parallel plan where you apply for two specialties at once. This will be discussed with your advisor.

M1-M2 checklist:

☑ AAMC Careers in Medicine Assessment
☑ LGM / Shadow clinicians
☑ Attend specialty presentations
☑ Join student groups
☑ Begin research projects
☑ M1/M2 summer experience

M3-M4 checklist:

☑ When you receive the survey for your Career Exploration clerkship elective preferences, request a derm rotation.

☑ Schedule a meeting with department chair Dr. Abby Van Voorhees to formally make the request for a **letter**. Contact other faculty for letters (see Q&A section).

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/ alumni (check out the back of this sheet for details).

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ **Submit Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

ADVISORS:
EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

COORDINATOR:
April McGuire
mcguiral@evms.edu

DERM ALUMNI:
alumni@evms.edu

DIGA RESOURCE
https://derminterest.com/advice

DRM408: Dermatology

Category: AMB, Elective

Course Information

Course Director	Abby Van Voorhees, MD	**Period Offered**	Blocks 2-4, 7-9
Location	EVMS, Andrews Hall EVMS Princess Anne Fort Norfolk Plaza Pariser Dermatology	**Duration**	4 weeks
		# of Students	3 per block
		Visiting Students	Yes
Main Contact	April McGuire, MMHPE mcguiral@evms.edu 757-446-0593	**Night Call**	No
		Pre-Requisites/Restrictions	None

Course Description

This elective is designed to give the student exposure to clinical dermatology including the vocabulary, diagnosis, and management of common skin diseases seen in general practice. Rotations through a variety of clinical outpatient settings will provide a broad-based background.

Course Objectives

1. Be able to perform a directed history and physical examination to assess a patient with skin disease and to formulate a plan of action.
2. Be able to accurately describe skin lesions.
3. Be able to diagnose and manage the 20 most common skin diseases.
4. Be familiar with the following procedures:
    a. KOH preparation
    b. Tzanck smear
    c. Scraping for ectoparasites
    d. Wood's light examination
5. Understand the principles of dermatologic surgery and cryotherapy.
6. Know how and when to refer a patient to a dermatologist.

Course Specifics

Report First Day TWO WEEKS BEFORE FIRST DAY contact April McGuire, 721 Fairfax Avenue, Suite 200 to complete paperwork required to begin the elective

Student Efforts

5% of time inpatient setting
0% of time in trauma/ICU
95% of time in outpatient setting

25 hours/week of direct patient care
9 hours/week of didactics
6 hours/week of asynchronous activities

Evaluation End of rotation exams, clinical observations and clinical presentations.

Additional Physicians Participating in Teaching Robert Smith, MD; Andrew Villanueva, MD; Judith Williams, MD; Julia Burden, MD; Molly Smith, MD; Robert Pariser, MD; Alice Roberts, MD, PhD

Site Compliance

Hospital 1: EVMS

DRM410: Dermatology Special Elective

Category: Elective

Course Information

Course Director	Abby Van Voorhees, MD	**Period Offered**	Blocks 1-4, 7-9
Location	EVMS Andrews Hall	**Duration**	4 weeks
Main Contact	April McGuire, MMHPE mcguiral@evms.edu 757-446-0593	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	Student must meet w/ Dr. Van Voorhees at least two weeks prior to the start of the rotation.

Course Description

This elective is offered to individuals with a special interest in dermatology. Opportunities will be available to pursue a research project that will result in a publication. Projects will be tailored to the individual's area of interest.

Course Objectives

1. Work with a mentor to refine the project's aims, research questions, and protocol
2. Form clinical questions and retrieve evidence to advance patient care
3. Demonstrate curiosity, objectivity, and scientific reasoning
4. Retrieve and assess evidence
5. Demonstrate awareness and early skill in the appraisal of sources and content of medical information
6. Present credible research questions and hypothesis
7. Present credible conclusions or proposed solutions of value for medical practice
8. Achieve significant results or stated goals with a presentation or publication at the end of the rotation

Course Specifics

Report First Day Contact April McGuire one month in advance to schedule meeting with Program Director.

Student Efforts

0% of time inpatient setting	0 hours/week of direct patient care
0% of time in trauma/ICU	0 hours/week of didactics
0% of time in outpatient setting	40 hours/week of asynchronous activities

Evaluation Observation, their ability to work with research resources, and fund of knowledge.

Additional Physicians Participating in Teaching Alice Roberts, MD; Robert Smith, MD; Dermatology residents

Site Compliance

Hospital 1: Non-hospital experience

Department of Emergency Medicine

The Department of Emergency Medicine is proud to serve as a center of excellence in Emergency Medicine in the Commonwealth of Virginia. We provide a comprehensive approach to the discipline of Emergency Medicine, providing leadership in clinical, academic and pre-hospital services.

We are one of the oldest Emergency Medicine residency programs and one of the oldest academic departments of Emergency Medicine in the U.S. We have been training outstanding Emergency physicians since 1981.

Our faculty and residents are actively engaged in scholarly activity and research, and we promote an atmosphere of inquiry and investigation. Our faculty and residents contribute to the advancement of emergency medical care through their research and publications. Faculty members lecture at the local, state, regional, national and international levels. Multiple members of the faculty have received national awards for their outstanding teaching and mentoring skills.

To learn more about the Department, visit https://www.evms.edu/emergency_medicine/#education

Specialty Advising: Emergency Medicine

Are you competitive?

Competitiveness: Competitive
Mean Step 1/2 score: 233/247 (EVMS emergency medicine graduates 2014-18)
Mean Step 1/2 score: 233/247 (AAMC Charting Outcome Data 2020)
Total number of programs: 256
Interview timing: October-January
Away rotations: Required
Research: Not required but helpful

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=1598)	Unmatched (n=141)
Mean number of contiguous ranks	12.8	6.1
Mean USMLE Step 1 score	**233**	**223**
Mean USMLE Step 2 score	**247**	**235**
Mean number of research experiences	2.8	2.6
Mean number of abstracts, presentations, publications	4.3	3.7
Mean number of volunteer experiences	7.8	6.9
Percentage who are AOA members	11.8	2.1
Percentage who have another graduate degree	17.2	22.2

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

EMERGENCY MEDICINE Q&A

AWAY ROTATIONS: Are away rotations required? Yes! **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day – you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. This is particularly helpful for your competitive "reach" programs.

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	**18:0 (18 students)**	**Data Pending**	**1-4 (range)**	**Blocks 2-4**

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Two to three from Emergency Medicine faculty, including the director, then one from a faculty from other departments. Emergency Medicine residencies use SLOEs, or Standardized Letters of Evaluation.

M4 SCHEDULING: What electives should I include in my M4 schedule? After two or three EM rotations, use the rest of your schedule to gain a deeper exposure in other areas such as Ophthalmology, Dermatology, Cardiology, Otolaryngology, Anesthesia, and Critical Care. CHKD also offers a pediatric emergency medicine elective.

M1-M2 checklist:

- ☑ AAMC Careers in Medicine Assessment
- ☑ LGM / Shadow clinicians
- ☑ Attend specialty presentations
- ☑ Join student groups
- ☑ Begin research projects
- ☑ M1/M2 summer experience

M3-M4 checklist:

☑ Schedule a meeting with Emergency Medicine director Dr. Knapp to formally make the request for a **letter**. Contact other faculty for letters (see Q&A section).

☑ Search and apply for away rotations.

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/ alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

ADVISORS:
EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

COORDINATOR:
Lisa Brennan 388.3397
Brennalm@evms.edu

ALUMNI:
alumni@evms.edu

RESOURCE: EMRA and CORD Student Advising Guide

ERM400: Emergency Medicine

Category: AI, CC, AMB, Elective

Course Information

Course Director	Michael Bono, MD, FACEP
Location	Sentara Norfolk General Hospital Sentara Princess Anne Hospital Sentara Leigh Hospital Sentara Virginia Beach General Hospital Sentara Obici Hospital
Main Contact	Traci Pugh pughtm@evms.edu 757-388-3397
Period Offered	Blocks 1-8
Duration	4 weeks
# of Students	10 per block
Visiting Students	Yes
Night Call	No
Pre-Requisites/Restrictions	Blocks 1-6 are reserved for students pursuing Emergency Medicine residency.

Course Description

Rotate through the Emergency Department at several area Sentara hospitals with under EM Attending physicians. The student will see and evaluate all types of emergency patients, while working closely with emergency medicine attendings and residents. There is ample opportunity for hands-on care and developing procedural and clinical skills. Students are required to attend a series of lectures, grand rounds, SIM lab assessments, FAST exam Ultrasound, and our monthly Journal Club. The final grade is based on case conference presentation, patient/procedure logbook, clinical performance, and final exam grade. Clinical performance is a composite score based on resident and attending evaluations. The logbook refers to clinical experience documented in a patient/procedure log kept by the student during the rotation. In order to be considered for a grade of Honors for this elective, (the student must complete 15 documented shifts), a clinical score evaluation of Honors, and take the shelf exam. Students will be assigned to a resident/attending and are expected to work their assigned shifts. Any schedule requests/changes must be approved in advance by the Chief Resident.

Course Objectives

1. Perform the initial evaluation of the emergent patient.
2. Know the fundamentals of advanced cardiac and trauma life support.
3. Understand the evaluation and management of trauma.
4. Evaluate any patient presenting to the Emergency Department.
5. Order and interpret labs, EKGs, and imaging studies in the evaluation of the emergent patient.
6. Recognize a patient requiring urgent or emergent care and initiate management.
7. Recognize when specialty or subspecialty consultation is appropriate.
8. Demonstrate proper wound care and suturing techniques for simple lacerations.
9. Perform a detailed examination of the trauma patient.
10. Develop a differential diagnosis for patients with common ED complaints.
11. Recognize arrhythmias and ischemic patterns of EKG tracings and rhythm strips.
12. Interpret radiographs of the chest, extremities, and spine.
13. Learn how to document electronic medical record.
14. Perform a FAST Exam with the use of Ultrasound lab.

Course Specifics

Report First Day	Rm 304, Raleigh Building, Sentara Norfolk General Hospital, 600 Gresham Drive, Norfolk 23507	
Student Efforts	0% of time inpatient setting 0% of time in trauma/ICU 100% of time in outpatient setting	40 hours/week of direct patient care 5 hours/week of didactics 5 hours/week of asynchronous activities
Evaluation	Exam grade, case conference presentation, patient/procedure logbook, clinical performance, and number of shifts.	
Additional Physicians Participating in Teaching	All physicians employed by the Emergency Physicians of Tidewater (EPT)	

Site Compliance

Hospital 1: Sentara Norfolk General Hospital
Hospital 2: Sentara Princess Anne Hospital
Hospital 3: Sentara Leigh Hospital
Hospital 4: Sentara Virginia Beach General Hospital
Hospital 5: Sentara Obici Hospital

ERM402: Emergency Medicine

Category: AI, CC, AMB, Elective

Course Information

Course Director	LT Eric Schmieler, MD	**Period Offered**	All Blocks
Location	Naval Medical Center Portsmouth	**Duration**	4 weeks
Main Contact	Rachel Darling usn.hampton-roads.navhospporsva.list.NMCP-MedStudentCoordinator@mail.mil 757-953-0672 or 757-953-3677	**# of Students**	Varies
		Visiting Students	No
		Night Call	Yes, shift work
		Pre-Requisites/Restrictions	Priority given to HPSP students July-October. To request this elective CLICK HERE. Click on "Request for Clerkship/Interview" in the bottom left corner

Course Description

Rotating medical students spend 4 weeks in our department, and function in a capacity similar to that of the typical sub-intern. Students evaluate patients autonomously and make presentations to senior residents or attending physicians with numerous training backgrounds and fellowship trainings. They participate in the resuscitation of critically ill or injured patients, and perform necessary procedures when indicated. Didactically, the student participates in the weekly emergency medicine residency conferences, daily on-shift lectures, intern practicum skills lab, and simulation lab. Additionally, students benefit from a specialized medical student curriculum which covers key concepts in the field. They are invited to attend monthly journal club sessions. Students also benefit from their interaction with interns and residents of varied levels of training and specialty interests. A particularly unique feature of our rotation is the exposure to emergencies presenting primarily in the military setting and emergency physician use of ultrasound. Naval Medical Center Portsmouth is a large 450 bed teaching hospital which has 14 specialty residencies/fellowships. The annual patient census in the emergency department approaches 70,000 visits. Approximately 30% of these are of the pediatric population. Our ER has 25 "main side" beds, 15 fast-track beds, 5 triage beds, 2 resuscitation rooms, 2 observation beds, and 4 dedicated psychiatric beds.

Course Objectives

1. To introduce the student to the specialty of emergency medicine, and to afford the opportunity to participate to the fullest in its practice.
2. To assist the student in developing a thorough, systematic approach to the rapid recognition, evaluation, treatment, and disposition of the critically ill or injured patient. Additionally, to refine student skills in case presentation.
3. To teach the student how to prioritize patient care in terms of risk to life and limb as well as to introduce the student to self-management of multiple patients in a busy emergency department.
4. To set forth and teach a defined body of knowledge and skills which constitute the cornerstone of the specialty of emergency medicine.
5. To define acceptable standards of treatment for frequently encountered problems in the emergency department setting.
6. To involve the student in the regularly scheduled activities corresponding to the active established residency curriculum.
7. To introduce the student to the field of pre-hospital care, toxicology, disaster management, and environmental medicine – areas which fall into the special expertise of the emergency physician.
8. To involve the student in special procedures such as suturing, I&D, slit lamp examination, lumbar puncture, NG tube placement, Foley catheter placement, fracture identification and immobilization techniques, acute resuscitation procedures, venous access and central line placement, arterial puncture, airway management procedures, and many others.
9. To maintain sufficient flexibility to meet the personal needs of the trainee, to afford time for reading and individualized study, and to provide the necessary time for rest and relaxation.
10. Ultimately, to allow the student to function as a team-member in our department, improving the quality of care to our patients.

Course Specifics

Report First Day: Graduate Medical Education Office, Bldg, #3, 3rd floor at 0800 on first day of rotation for check-in documents.

Student Efforts:
0% of time inpatient setting
0% of time in trauma/ICU
100% of time in outpatient setting
30 hours/week of direct patient care
5 hours/week of didactics
1 hours/week of asynchronous activities

Evaluation: A brief 25-question examination based on the assigned readings is administered at the end of the rotation. The test is designed to be educational. Evaluations are primarily based on input from staff and resident physicians familiar with the performance of the student and ultimately collated by the medical student coordinator. Plenty of time-off is scheduled to allow the student time to complete the assignments.

Additional Physicians Participating in Teaching: CAPT John Devlin, MD; CDR Patrick Cronyn, MD; CAPT P. Mike Adriano, MD; LCDR Steven Glerum, MD; LCDR Michael Jackson, DO; LCDR Adrianna Kyle, DO; Mike Owens, DO; Bob Frank, MD; LCDR Adam Bloom, DO; Rob Marshall, MD; LT Alyssa Krepela, DO; LT Samantha Ward, MD; LT Eric Sulava, MD

Site Compliance

Hospital 1: Naval Medical Center Portsmouth

ERMTBD: Emergency Medicine

Category: AI, CC, AMB, Elective

Course Information

Course Director	Amanda Polsinelli, MD Timothy Forsythe, DO	**Period Offered**	All Blocks
		Duration	4 weeks
Location	Riverside Regional Medical Center	**# of Students**	1 per block
		Visiting Students	No
Main Contact	Stephanie Powell stephanie.powell@rivhs.com	**Night Call**	No
		Pre-Requisites/Restrictions	Blocks 1-6 reserved for students pursuing emergency medicine

Course Description

Rotate through the Emergency Department at Riverside under EM Attending physicians. The student will see and evaluate all types of emergency patients, while working closely with emergency medicine attendings. There is ample opportunity for hands-on care and developing procedural and clinical skills. Students will be assigned to an attending and are expected to work their assigned shifts. Any schedule requests/changes must be approved in advance by the course director. Students are required to attend a series of lectures, grand rounds, SIM lab assessments, FAST exam Ultrasound, and our monthly Journal Club. The final grade is based on case conference presentation, clinical performance, and final exam grade. Clinical performance is a composite score based on attending evaluations. In order to be considered for a grade of Honors for this elective, (the student must complete 15 documented shifts), a clinical score evaluation of Honors, and pass the SAEM M4 exam on the first attempt. If the exam is failed, a makeup opportunity to improve your score will be given but Honors will no longer be possible.

Course Objectives

1. Perform the initial evaluation of the emergent patient.
2. Know the fundamentals of advanced cardiac and trauma life support.
3. Understand the evaluation and management of trauma.
4. Evaluate any patient presenting to the Emergency Department.
5. Order and interpret labs, EKGs, and imaging studies in the evaluation of the emergent patient.
6. Recognize a patient requiring urgent or emergent care and initiate management.
7. Recognize when specialty or subspecialty consultation is appropriate.
8. Demonstrate proper wound care and suturing techniques for simple lacerations.
9. Perform a detailed examination of the trauma patient.
10. Develop a differential diagnosis for patients with common ED complaints.
11. Recognize arrhythmias and ischemic patterns of EKG tracings and rhythm strips.
12. Interpret radiographs of the chest, extremities, and spine.
13. Learn how to document electronic medical record.
14. Perform a FAST Exam with the use of Ultrasound lab

Course Specifics

Report First Day	Annex building Floor 2; GME office conference room	
Student Efforts	0% of time inpatient setting 0% of time in trauma/ICU 100% of time in outpatient setting	40 hours/week of direct patient care 5 hours/week of didactics 5 hours/week of asynchronous activities
Evaluation	Exam grade, case conference presentation, patient/procedure logbook, clinical performance, and number of shifts.	
Additional Physicians Participating in Teaching	Riverside EM Core and Community Faculty	

Site Compliance

Hospital 1: Riverside Regional Medical Center

ERM405: Honors Ultrasound in Emergency Medicine

Category: Elective

Course Information

Course Director	Barry Knapp, MD, RDMS	**Period Offered**	All Blocks
Location	Sentara Norfolk General Hospital	**Duration**	Longitudinal for 4 weeks of credit
Main Contact	Ashton Pas PasAN@evms.edu 757-446-0364	**# of Students**	30 students
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Preference for students pursuing EM residency and those with a strong interest in point-of-care ultrasound. Prospective students must submit an email request to be selected for the Honors Ultrasound Program to the course coordinator (Ashton Pas: PasAN@evms.edu).

Course Description

The purpose of this course is to longitudinally teach the fundamentals of point-of-care ultrasound (POCUS) for selected students pursuing a career in which an ultrasound skill set would be beneficial. During the year, M4 students will have the opportunity to work with sonography faculty and clinicians proficient in POCUS. The student will become proficient in the core applications of POCUS. The M4 student will serve as an education resource to assist in teaching other students.

Hours Bank: It is expected each student engage in 160 hours of ultrasound activities during the course of the academic year (4 weeks x 40 hours = 160 hours). All hours must be logged in the hours bank within one week of the activity. A minimum of 60 hours needs to be completed by Jan 1 of the academic year. In order to pass the course, all hours must be documented by May 1 of the academic year. Given the hectic and variable nature of the fourth-year of medical school (away rotations and residency interviews) the faculty realize that students will not be able to participate in all course educational offerings. Examples of activities that may be logged into the hours bank include, but are not limited to: Facilitating M1/M2 Ultrasound Education Sessions (counts 2 hours for every 1 hour engaged); Attending ultrasound didactics; Attending ultrasound rounds in the emergency department; Completing SonoSIM modules (max 40 hours); An ultrasound case presentation is required (max 10 hours); Participating in teaching during the Transition into Clinical Practice (TIPS) course is required (max 20 hours). In addition, students are required to document 50 ultrasound exams over the course of the academic year.

Course Objectives

1. To learn the fundamental physics and knobology of point-of-care ultrasound.
2. To learn how to apply goal directed ultrasound across the breadth of pathology.
3. How to specifically apply organized but focused ultrasound at the bedside of a critically ill or injured patient.
4. To learn to properly interpret ultrasound images from the most common applications.
5. To assist in ultrasound education of other med students.

Enabling Objectives:

1. Perform a Focused Assessment with Sonography in Trauma (FAST) examination
2. Place a Central Venous Catheter using ultrasound guidance in the simulation laboratory.
3. Perform a right upper quadrant ultrasound.
4. Perform an abdominal focused cardiac ultrasound.
5. Perform an abdominal aortic ultrasound
6. Perform a pelvic ultrasound in a female in early pregnancy.
7. Perform a limited renal ultrasound.
8. Use ultrasound to aid guidance in invasive procedures.

Course Specifics

Report First Day Raleigh Bldg, Rm 304, Sentara Norfolk General Hospital

Student Efforts

0% of time inpatient setting	0 hours/week of direct patient care
0% of time in trauma/ICU	10 hours/week of didactics
20% of time in outpatient setting	10 hours/week of asynchronous activities

Evaluation Honors, Pass or Fail based directly upon the student's level of engagement, performance of bedside ultrasounds in the clinical space and simulation lab over the course of the year, and successful completion of the optional Honors Ultrasound project. Pass Criteria: Log 160 total hours in the "Hours Bank" over the course of the year; Perform 50 documented ultrasounds over the course of the year. Honors Criteria: Meet Pass Criteria; Perform an additional 100 documented ultrasounds, for a total of 150 scans over the year. Mastery Criteria: Meet Honors Criteria and perform a total of 500 scans over the year; Pass the ARDMS SPI Exam; optionally, obtain a specialty certification from the ARDMS (abdomen, cardiac, OB, etc.)

Additional Physicians Participating in Teaching Don Byars, MD, RDMS, RDCS; Felicia M. Toreno, PhD, RDMS, RDCS, RVT; Matt Jones, MD, MS, RDMS, FACEP

Site Compliance

Hospital 1: Sentara Norfolk General Hospital

ERM410: Rural Emergency Medicine

Category: CC, AMB, Elective

Course Information

Course Director	Hugh Hemsley, MD, FACEP	**Period Offered**	All Blocks
Location	Riverside Shore Memorial Hospital, Emergency Department	**Duration**	4 weeks
		# of Students	1 per block
Main Contact	Aileen Shafer shaferam@evms.edu 757-446-5050	**Visiting Students**	No
		Night Call	Yes, all required shifts will be at night 7pm-7am. Student can sign up for additional day shifts if desired.
		Pre-Requisites/Restrictions	None

Course Description

Students will rotate through the Riverside Shore Memorial Hospital Emergency Department located on the Eastern Shore for one month. This is a relatively new facility that sees about 23,000 patients per year in the ED with a high patient acuity. They will be introduced to the specialty of emergency medicine. Working in a rural emergency department they will be exposed also to the pros and cons unique to that type of practice. Students will function in a capacity similar to that of a sub-intern. Students will independently evaluate patients and then present cases to an attending physician for further discussion. Emphasis will be placed on developing the skills of rapid but thorough patient evaluation, treatment and appropriate disposition of the critically ill or injured patient. They will have the opportunity to participate in the evaluation of most complaints that present to the emergency department in addition to performing a variety of procedures when indicated. The student will be expected to be involved with the care of multiple patients and be able to prioritize their care. A minimum of 96 hours of clinical participation is mandatory. This requirement will be fulfilled by working eight 12 hour night shifts with Hugh Hemsley MD FACEP from 7p-7a. Additional hours at anytime during the rotation can also be obtained. EVMS Student Housing is available at 18554 Plantation Road, Onancock, Virginia 23417

Course Objectives

1. Introduce the student to the specialty of emergency medicine
2. Study and expand the body of knowledge of emergency medicine
3. Develop the skills needed to evaluate and care for patients in the ED
4. Develop the skills needed to communicate effectively with patients and their families
5. Develop the skills needed to communicate with other health care providers and function as part of the health care team.

Course Specifics

Report First Day	Contact Course Director	
Student Efforts	0% of time inpatient setting 100% of time in trauma/ICU 0% of time in outpatient setting	24 hours/week of direct patient care 0 hours/week of didactics 0 hours/week of asynchronous activities
Evaluation	The student will be evaluated based on the Unified Competencies For The MD Program	
Additional Physicians Participating in Teaching	Scott Hines, MD; Denise Harrison, MD; Ryan McAtee, DO; Debra Davis, MD; Crissy Hendricks, DO	

Site Compliance

Hospital 1: Riverside Health System

ERM415: Virtual Emergency Medicine

Category: CC, Elective

Course Information

Course Director	Brooke Hooper, MD	**Period Offered**	All Blocks
Location	Virtual	**Duration**	Longitudinal for 2 weeks credit
Main Contact	Aileen Shafer shaferam@evms.edu 757-446-5050	**# of Students**	Unlimited
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

This introductory course in Emergency Medicine provides a foundation of theoretical knowledge needed before starting for an Emergency Medicine rotation for clinically-prepared medical students, residents, or practicing physicians. All parts of this training are free, including registration, learning, testing, and a certificate of completion. This course is intended for medical students, residents, or physicians in training and in practice.

There are three components to this course:
1. Online Modules
2. Skills-Based Sessions
3. Final examination

In order to receive a certificate of completion, students will need to successfully complete both components of the course. The skills-based sessions or "Mentored Activities" will be available as sessions during the TIPS: Residency weeks in Block 10.

Course Objectives

Upon completion of the course, participants should be able to:
1. Begin a basic diagnostic and treatment approach to common emergency department presentations
2. Participate in patient management and communication in the emergency department
3. Demonstrate knowledge of common emergency diseases
4. Demonstrate knowledge in common critical care procedures

Course Specifics

Report First Day Contact course contact for more information. The course can be accessed at: https://nextgenu.org/course/view.php?id=37

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
0% of time in outpatient setting

0 hours/week of direct patient care
4 hours/week of didactics
20-30 hours/week of asynchronous activities

Evaluation Successful completion of the virtual course

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Non-hospital experience

Department of Family Medicine

Our mission is to improve and promote the health of our patients and the people of Virginia through leadership and innovation in clinical practice, medical education, patient care, scholarly activities, research, and community service. We are concerned with current needs and future generations, and we have made special commitments to the underserved, children, mothers, the elderly and other at-risk populations in a time of rapid change in the healthcare world.

Our Patient-Centered Medical Home accreditation aims to improve the quality and efficiency of care and promote partnerships between patients and their personal physician. Each patient's care is tended to by clinician-led care teams who provide for all the patient's healthcare needs and coordinate treatments across the healthcare system.

EVMS Ghent Family Medicine is a comprehensive primary care center that exists to provide exceptional personalized patient care and broad-based medical education. We strive to foster the development of competent, compassionate family physicians and other healthcare professionals through lifelong personal and professional growth. Our guiding principles include continuity, accessibility and collaboration. Diversity is our strength. EVMS Portsmouth Family Medicine offers a supportive environment for residents while promoting expert, compassionate and comprehensive care. Residents are the key members of the Portsmouth Family Medicine family as they learn to be diagnosticians, counselors, scientists, teachers and friends in the healthcare community. Our goal is for all physicians and staff to focus on treating the whole family, body, mind and spirit.

EVMS Family and Community Medicine provides educational services for students at EVMS and partnering institutions. Our faculty contributes to medical student education through classroom teaching, early clinical experiences, medical simulations, service teaching and mentoring. Our clinical clerkship allows students to experience a sample of family and community medicine.

Goals for the electives in Family Medicine include:

- Learn about common patient-care issues encountered by family physicians
- Understand the family physician's role in directing and coordinating care for patients, their families and the EVMS community
- Observe and understand the disparities in healthcare outcomes.
- Attempt to correct the health disparities in our community through service-learning experiences by providing culturally and contextually appropriate care and by applying lessons learned in patient-centered communications.
- Motivate patients toward better self-care and adherence to a medical plan
- Understand how evidence-based medicine, team-based interdisciplinary care, information technology and medical systems analysis can improve healthcare while decreasing waste and errors

Experiences come from a variety of sources, including Family Medicine faculty, community physicians, residents, inpatient and outpatient services and didactics.

Medical students work closely with faculty, community physicians and residents in both inpatient and outpatient services. Lectures and conferences complement the clinical experiences each resident gains.

Following basic clinical experiences, we offer complementary and additive electives in Family Medicine that include electives in the hospital, ambulatory and rural settings, as well as electives in quality improvement and cost conscious care.

To learn more about the Department visit: https://www.evms.edu/education/schools_institutes_centers_departments/family_community_medicine/

Specialty Advising: Family Medicine

Are you competitive?

Competitiveness: Less competitive
Mean Step 1/2 score: 227/239 (EVMS family medicine graduates 2014-18)
Mean Step 1/2 score: 221/238 (AAMC Charting Outcome Data 2020)
Total number of programs: 706
Interview timing: October-January
Away rotations: Not required
Research: Less important but helpful

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=1341)	Unmatched (n=44)
Mean number of contiguous ranks	12.1	4.8
Mean USMLE Step 1 score	**221**	**209**
Mean USMLE Step 2 score	**238**	**222**
Mean number of research experiences	2.2	2.1
Mean number of abstracts, presentations, publications	3.3	2.5
Mean number of volunteer experiences	8.0	5.1
Percentage who are AOA members	6.4	4.5
Percentage who have another graduate degree	17.5	18.4

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

FAMILY MEDICINE Q&A

AWAY ROTATIONS: Are away rotations required? Not necessarily, but some students find them to be rewarding experiences and an opportunity to explore different regions/programs. **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day – you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. This is particularly helpful for your "reach" programs.

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	**4:8 (12 students)**	**Data Pending**	**2-3 (range)**	**Blocks 2-5**

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Since Family Medicine is so broad, LoRs can be from multiple specialties (that can attest to your clinical skills), but be sure to have 1-2 from family medicine faculty and the chair.

PERSONAL STATEMENT: Show your personality, experience, goals, and commitment. *From the AAFP*: Demonstrated awareness and excitement about what is going on in family medicine can distinguish a good personal statement from a great one. For example, a student will demonstrate real interest and potential as a residency candidate by showing awareness of—or experience with—population health management, super-utilizers, care coordination, the Family Medicine for America's Health initiative, or other factors related to the specialty's impact and role in health care at a national level.

M1-M2 checklist:

☑ AAMC Careers in Medicine Assessment
☑ LGM / Shadow clinicians
☑ Attend specialty presentations
☑ Join student groups
☑ Begin research projects
☑ M1/M2 summer experience

M3-M4 checklist:

☑ Schedule a meeting with Family Medicine Chair Alison Dobbie, MB ChB to formally request a letter.

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

ADVISORS:
EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

COORDINATOR:
Stephanie Ratcliffe
RatcliSL@EVMS.EDU

FAMILY MED ALUMNI:
alumni@evms.edu

FAMILY MEDICINE AAFP ADVISING RESOURCE:
Strolling Through the Match

FAM417: Family Medicine Acting Internship

Category: AI, Elective

Course Information

Course Director	John Snellings, MD	**Period Offered**	All Blocks
Location	Ghent Family Medicine Sentara, Norfolk General Hospital	**Duration**	4 weeks
		# of Students	1 per block
Main Contact	Stephanie Ratcliffe RatcliSL@EVMS.EDU 757-446-7460	**Visiting Students**	Yes
		Night Call	Yes; up to one week of night call per rotation.
		Pre-Requisites/Restrictions	None

Course Description

The student will spend 4 weeks with the Ghent Family Medicine inpatient team at Sentara Norfolk General Hospital. Inpatient service only admits patients from the Ghent Family Practice. The student's responsibilities are commensurate to those of an intern on the family medicine service. These responsibilities include daily rounds, management of patients, evaluations of patients in the emergency department, admissions and discharges through EMR. For continuity, there will be opportunities to follow the discharged patient(s) during follow-up at the Ghent ambulatory center. There will also be opportunities to take night call with the family medicine intern. All activities will be supervised by a senior resident and the rounding faculty. The acting intern will attend didactic lectures one afternoon per week, and will spend one afternoon per week in the outpatient setting seeing patients.

Course Objectives

Upon completion of this rotation the student will be able to:

1. Perform at the level of a first-year resident.
2. Follow and have primary responsibility for the care of the patients they admit (from admission through discharge).
3. Work with hospital healthcare team to transition patient safely back to outpatient setting.
4. Demonstrate the ability to order appropriate diagnostic studies and interpret their results.
5. Perform procedures, when indicated, on their patients (under direct supervision of attending/resident).
6. Demonstrate a working knowledge of the psychosocial and biomedical aspects of common outpatient medical problems for which patients are commonly admitted to a family medicine service.
7. Demonstrate the ability to assess the psychosocial aspects of a patient's history and the effects they might have on the health of that patient.
8. Become familiar with practice-based learning – i.e. Cost effective medicine
9. Become familiar with community-based learning – i.e. Communication with other care providers and consultants

Course Specifics

Report First Day Prior to the first day of the rotation, student is contacted and provided the meeting location of the inpatient team.

Student Efforts

95% of time inpatient setting
0% of time in trauma/ICU
5% of time in outpatient setting

35 hours/week of direct patient care
5 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation The student's final grade will be based on performances as evaluated by attending and resident physicians. Also included will be attendance at the didactic sessions and a written H&P on one of the patients that the student admits while on the rotation.

Additional Physicians Participating in Teaching Michael Layne, MD; Thomas Grant, MD; Sahira Humadi, MD; Margaret Baumgarten, MD; Richard Whalen, MD; Mary Rubino, MD; Amanda Gibson, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

FAM423: Family Medicine Acting Internship

Category: AI, Elective

Course Information

Course Director	Karo "Gary" Ohanian, MD	**Period Offered**	All Blocks
Location	Portsmouth Family Medicine Bon Secours Mercy, Maryview Medical Ctr	**Duration**	4 weeks
		# of Students	1 per block
Main Contact	Stephanie Ratcliffe RatcliSL@EVMS.EDU 757-446-7460	**Visiting Students**	Yes
		Night Call	Yes
		Pre-Requisites/Restrictions	None

Course Description

The student will spend 4 weeks at Portsmouth Family Medicine. The student's responsibilities will be comparable to those of an intern on the family medicine service. They will be required to do admission histories and physicals and follow the patients admitted to the service. They will also attend didactic lectures at the appropriate site. The student will spend one afternoon per week in the office seeing patients with hospital residents to provide continuity for discharged patients.

Course Objectives

Upon completion of this rotation the student will be able to:

1. Perform at the level of a first year resident.
2. Follow and have primary responsibility for the care of the patients they admit (from admission through discharge).
3. Work with hospital healthcare team to transition patient safely back to outpatient setting.
4. Demonstrate the ability to order appropriate diagnostic studies and interpret their results.
5. Perform procedures, when indicated, on their patients (under direct supervision of attending/resident).
6. Demonstrate a working knowledge of the psychosocial and biomedical aspects of common outpatient medical problems for which patients are commonly admitted to a family medicine service.
7. Demonstrate the ability to assess the psychosocial aspects of a patient's history and the effects they might have on the health of that patient.
8. Become familiar with practice-based learning – i.e. Cost effective medicine
9. Become familiar with community-based learning – i.e. Communication with other care providers and consultant

Course Specifics

Report First Day Justin Beck at Portsmouth Family Medicine, 757-264-5936. Prior to the first day of the rotation, the student is contacted and provided the meeting location of the inpatient team.

Student Efforts

90% of time inpatient setting
0% of time in trauma/ICU
10% of time in outpatient setting

36 hours/week of direct patient care
4 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation The student's final grade will be based on performances as evaluated by attending and resident physicians. Also included will be attendance at the didactic sessions and a written H&P on one of the patients that the student admits while on the rotation.

Additional Physicians Participating in Teaching Portsmouth Family Medicine faculty and residents

Site Compliance

Hospital 1: Bon Secours, Maryview Medical Center

FAM418: Ambulatory Family Medicine

Category: AMB, Elective

Course Information

Course Director	John Snellings, MD	**Period Offered**	All Blocks
Location	Ghent Family Medicine	**Duration**	4 weeks
Main Contact	Stephanie Ratcliffe RatcliSL@EVMS.EDU 757-446-7460	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

The student will spend four weeks providing patient care at the Ghent Family Medicine ambulatory center under the supervision of attending physicians and senior residents. The student will have the opportunity to provide "point of care" services such as cryotherapy and joint injections. Participation in the center's minor surgery, colposcopy and other specialty clinics can be arranged based on interest and availability.

Course Objectives

Upon completion of this rotation the student will be able to:

1. Appreciate the scope of ambulatory family practice.
2. Develop his/her clinical skills in managing common outpatient problems.
3. Develop his/her understanding of practicing in an environment which interfaces with managed care systems.

Course Specifics

Report First Day Contact Stephanie Ratcliffe at Ghent Family Medicine, 757-446-7460

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
100% of time in outpatient setting

35 hours/week of direct patient care
5 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% observation - Student will receive a composite evaluation based on assessments completed by faculty and residents

Additional Physicians Participating in Teaching Ghent Family Medicine faculty

Site Compliance

Hospital 1: Non-hospital experience

FAM424: Ambulatory Family Medicine

Category: AMB, Elective

Course Information

Course Director	Barry Gentry, MD	**Period Offered**	All Blocks
Location	Portsmouth Family Medicine	**Duration**	4 weeks
Main Contact	Stephanie Ratcliffe RatcliSL@EVMS.EDU 757-446-7460	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

The student will spend four weeks in their rotations seeing patients with their preceptor. The student will provide care for patients under supervision and when appropriate participate in educational activities.

Course Objectives

Upon completion of this rotation the student will be able to:

1. Appreciate the scope of ambulatory family practice.
2. Develop his/her clinical skills in managing common outpatient problems.
3. Develop his/her understanding of practicing in an environment which interfaces with managed care systems.

Course Specifics

Report First Day Contact Justin Beck at Portsmouth Family Medicine, 757-264-5936.

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
80% of time in outpatient setting

32 hours/week of direct patient care
4 hours/week of didactics
4 hours/week of asynchronous activities

Evaluation 100% observation - Student will receive a composite evaluation based on assessments completed by faculty and residents

Additional Physicians Participating in Teaching Portsmouth Family Medicine faculty

Site Compliance

Hospital 1: Non-hospital experience

FAM410: Apprenticeship in Family Medicine — Category: AMB, Elective

Course Information

Course Director	Bruce Britton, MD	**Period Offered**	All Blocks
Location	Community Family Doctor's Office who holds an EVMS Community Faculty appointment and has an affiliation agreement in place with EVMS. See list maintained by Stephanie Ratcliffe.	**Duration**	4 weeks
		# of Students	3 per block
		Visiting Students	No
		Night Call	No
Main Contact	Stephanie Ratcliffe RatcliSL@EVMS.EDU 757-446-7460	**Pre-Requisites/Restrictions**	None

Course Description

Through reading and direct observation of family physician preceptors, the student will develop an accurate understanding of family medicine as a discipline and potential career choice.

Course Objectives

Upon completion of this rotation the students will be able to:

1. Define their knowledge of the scope of ambulatory family medicine
2. Develop his/her clinical skills in managing common outpatient problems
3. Develop his/her understanding of practicing in an environment which interfaces with managed care systems
4. Use the resources of the EVMS Department of Family and Community Medicine to meet ongoing educational and career guidance needs in medical school.

Course Specifics

Report First Day Family Physician's Office with a physician who holds an EVMS Community Faculty appointment

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
100% of time in outpatient setting

30-50 hours/week of direct patient care
0 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation, OR the student may take this as a non-credit elective with a letter documenting their participation sent to their academic file in the Dean's Office.

Additional Physicians Participating in Teaching See list maintained by Stephanie Ratcliffe

Site Compliance

Health System: Compliance requirements will be identified at time of placement

FAMTBD: Family Medicine Acting Internship

Category: AI, Elective

Course Information

Course Director	Jon Kaminer, MD	**Period Offered**	All Blocks
Location	Riverside Brantwood Family Medicine and Riverside Regional Medical Center	**Duration**	4 weeks
		# of Students	1 per block
Main Contact	Kathleen Hundley Kathleen.hundley2@rivhs.com 757-594-3890	**Visiting Students**	No
		Night Call	Yes
		Pre-Requisites/Restrictions	This rotation is open to students interested in pursuing a residency in Family Medicine and staying in Hampton Roads. Students must contact Ms Hundley to submit an application.

Course Description

The student will spend 4 weeks with the Riverside Family Medicine Program. Time will be spent with the inpatient team at Riverside Regional Medical Center and at the Riverside Brentwood Family Medicine Outpatient Clinic. The student's responsibilities are commensurate to those of a family medicine intern. These responsibilities include daily rounds, management of patients, evaluations of patients in the emergency department, admissions and discharges through EMR. For continuity, there will be opportunities to follow the discharged patient(s) during follow-up at the outpatient family medicine center. There will also be opportunities to take night call on the inpatient service with the family medicine intern. All activities will be supervised by a senior resident and the rounding faculty. The acting intern will attend didactic lectures as scheduled for the family medicine residents.

Course Objectives

Upon completion of this rotation the student will be able to:

1. Perform at the level of a first year resident.
2. Follow and have primary responsibility for the care of the patients they admit (from admission through discharge).
3. Work with hospital healthcare team to transition patient safely back to outpatient setting.
4. Demonstrate the ability to order appropriate diagnostic studies and interpret their results.
5. Perform procedures, when indicated, on their patients (under direct supervision of attending/resident).
6. Demonstrate a working knowledge of the psychosocial and biomedical aspects of common outpatient medical problems for which patients are commonly admitted to a family medicine service.
7. Demonstrate the ability to assess the psychosocial aspects of a patient's history and the effects they might have on the health of that patient.
8. Become familiar with practice-based learning – i.e. Cost effective medicine
9. Become familiar with community-based learning – i.e. Communication with other care providers and consultants.

Course Specifics

Report First Day Prior to the first day of the rotation, student is contacted and provided the meeting location of the team.

Student Efforts

75% of time inpatient setting
0% of time in trauma/ICU
25% of time in outpatient setting

35 hours/week of direct patient care
4 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation The student's final grade will be based on performances as evaluated by attending and resident physicians. Also included will be attendance at the didactic sessions and a written H&P on one of the patients that the student admits while on the rotation

Additional Physicians Participating in Teaching Bradley Touchet, MD; Joy Elliott, DO; Beth Klug, MD; Patricia Wessler, MD; Verneeta Williams, MD; Michael Lustig, MD; Jacob Jones, MD

Site Compliance

Hospital 1: Riverside

FAM404: Rural Medicine

Category: AMB, Elective

Course Information

Course Director	Bruce Britton, MD	**Period Offered**	All Blocks
Location	Community Family Doctor's Office who holds an EVMS Community Faculty appointment and has an affiliation agreement in place with EVMS. See list maintained by Stephanie Ratcliffe.	**Duration**	2 or 4 weeks
		# of Students	2 per block
		Visiting Students	No
		Night Call	No
Main Contact	Stephanie Ratcliffe RatcliSL@EVMS.EDU 757-446-7460	**Pre-Requisites/Restrictions**	Blocks 1-6 are for students pursuing primary care residency training

Course Description

This elective is designed to provide an in-depth experience in community/rural medicine. Student will work with a family physician in a rural primary care office. Travel may be necessary to Health Resources Service Administration rural sites around Hampton Roads, Virginia, or other states.

Housing and transportation costs may be required if travel is over regulatory limits.

Course Objectives

Upon completion of this rotation the students will be able to:

1. Identify special health conditions within the rural populations.
2. Identify the nutritional factors in rural population which contribute to their health problems.
3. Recognize the environment, family situations, and social structures as important contributions to the health status of an individual.
4. Describe the contribution poverty plays in the distribution of infections and chronic diseases, especially among rural populations.
5. Demonstrate health education skills.

Course Specifics

Report First Day Family Physician who holds an EVMS Community Faculty appointment

Student Efforts

0-10% of time inpatient setting
0% of time in trauma/ICU
90-100% of time in outpatient setting

30-50 hours/week of direct patient care
0 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation, OR the student may take this as a non-credit elective with a letter documenting their participation sent to their academic file in the Dean's Office.

Additional Physicians Participating in Teaching See list maintained by Stephanie Ratcliffe

Site Compliance

Health System: Compliance requirements will be identified at time of placement

FAM421: Quality Improvement

Category: Elective

Course Information

Course Director	Margaret Baumgarten, MD Catherine Derber, MD	**Period Offered**	August-May
		Duration	Longitudinal for 4 weeks of credit
Location	EVMS	**# of Students**	20+
Main Contact	Stephanie Ratcliffe RatcliSL@EVMS.EDU757-446-7460	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	Meeting with Course Director

Course Description

The student will longitudinally over academic year work with Dr. Margaret Baumgarten/Dr. Catherine Derber, and other faculty for approximately 8 sessions starting in August and continuing once a month. The student will work with the Quality Improvement team in various aspects of EVMS QI activities that may include practice-based research and implementation, best practices research and implementation, disease registry development and implementation, and development of dissemination of knowledge programs.

Course Objectives

Upon completion of this rotation the student will be able to:

1. Understand basic principles of Continuous Quality Improvement in a healthcare organization.
2. Understand basic process improvement methodologies and techniques utilized in Quality Improvement and Institutional Review Board.
3. Understand basic organizational structures that foster integration of Quality Improvement into healthcare organizations.
4. Course objectives may be tailored to meet their specific needs in conjunction with Dr. Baumgarten/ Dr. Derber.

Course Specifics

Report First Day Dr. Margaret Baumgarten/Dr. Catherine Derber

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
10% of time in outpatient setting

0 hours/week of direct patient care
10% hours/week of didactics
80% hours/week of asynchronous activities

Evaluation The student's final grade will be based on performance as evaluated by Director and the QI team and on student's research and written QI project.

Additional Physicians Participating in Teaching Richard Bikowski, MD

Site Compliance

Hospital 1: Non-hospital experience

FAM425: Cost Conscious Medical Care

Category: Elective

Course Information

Course Director	John Snellings, MD	**Period Offered**	August-April
Location	EVMS Hofheimer Hall, online classrooms	**Duration**	Longitudinal for 4 weeks of credit
Main Contact	Stephanie Ratcliffe RatcliSL@EVMS.EDU 757-446-7460	**# of Students**	20 spots
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Students will meet for initial course introduction to enhance cost-conscious medical care appreciation for the ambulatory or inpatient care settings, and/or interfaces of care (e.g., emergency departments). There are 8 total sessions held between August and April. Students will prepare for evening seminars reviewing best practices in cost-conscious care, from the Choosing Wisely Initiative to principles of parsimony. Students will have the opportunity to meet independently to design and carry out education or clinical interventions, while learning metrics for quality and cost of care.

Course Objectives

Upon completion of this rotation the student will be able to:

- Describe the basic cost drivers of medical care in the United States.
- Demonstrate the influence of social determinants of health and their relationship to medical costs in the United States.
- Analyze the impact of medical costs on the accessibility of medical care and health disparities in the United States.
- Define the effects of diagnostic testing costs on the costs of medical care.
- Describe how physicians can affect the costs of patient care.

Course Specifics

Report First Day Contact Stephanie Ratcliffe two weeks in advance, 757- 446-7460

Student Efforts

0% of time inpatient setting	0 hours/week of direct patient care
0% of time in trauma/ICU	10-20 hours/week of didactics
0% of time in outpatient setting	2 hours/week of asynchronous activities

Evaluation Students will be graded based on combination of overall course participation including seminar discussion, online discussion groups, and assignments. Grading will be based on these outcomes.

Additional Physicians Participating in Teaching Guest Lectures, TBD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

FAM426: Frontier Medicine

Category: AMB, Elective

Course Information

Course Director	Hamilton Bice, DO	**Period Offered**	All Blocks
Location	Riverside Cape Charles Medical Center 216 Mason Ave Cape Charles, VA	**Duration**	2 or 4 weeks
		# of Students	1 per block
		Visiting Students	No
Main Contact	Elizabeth Pruitt/Stephanie Ratcliffe iney24@hotmail.com/ratclisl@evms.edu 804-435-3133 or 804-435-2119	**Night Call**	Yes; One bedroom with kitchenette and full bathroom above Taniger Clinic
		Pre-Requisites/Restrictions	Blocks 1-6 are for students pursuing Family Medicine residency training

Course Description

This elective is designed to provide an in-depth experience in frontier/rural medicine, experience with environmental and occupational health, inter-professional team based care, and health information technology (HIT) that bridges care for frontier populations. Student will work with a family physician in rural primary care office and in the Frontier Community Clinic (http://tangierclinic.org/) with Physician Assistant Inez Pruitt.

Travel will be necessary to the Eastern Shore and Tangier Island. Students should be prepared to stay in housing/dorm provided. Students should be prepared to fly to Tangier Island with physician supervisor or take the ferry.

Course Objectives

Upon completion of this rotation the student will be able to:

1. Identify special health conditions within the eastern shore and Tangier Island populations. Student will review information on unique population needs of Tangier Island residents provided by supervising physician.
2. Identify the unique barriers to health care in frontier populations and the systems and team required to bridge those barriers including physician extenders and telemedicine. Student will work with inter-professional team, utilize HIT to communicate with supervising physician.
3. Recognize the occupational, environmental, family systems, and social structures as important contributions to the health status of an individual.
4. Demonstrate health education skills that are sensitive to unique culture of Tangier Island residents.

Course Specifics

Report First Day Contact Elizabeth Pruitt at iney24@hotmail.com two weeks prior to start date.

Student Efforts

0% of time inpatient setting	40 hours/week of direct patient care
0% of time in trauma/ICU	0 hours/week of didactics
100% of time in outpatient setting	5 hours/week of asynchronous activities

Evaluation Upon completion of objectives, the student's final grade will be completed by supervising physician and based on observations and evaluations from PA.

Additional Health Professionals Participating in Teaching Elizabeth Pruitt, PA

Site Compliance

Hospital 1: Riverside Health Systems

Department of Internal Medicine

The Department of Internal Medicine is one of Eastern Virginia Medical School's most established academic departments, having been one of the founding graduate medical education training programs of the school when it was established in 1975.

Welcome to the Department of Medicine website at EVMS. We invite you to learn more about our outstanding education, patient care, and research programs. We strive for excellence in all three of these missions and we are proud of our achievements and wonderful faculty and residents. We strive to provide the highest quality of primary and subspecialty care for patients throughout the area. We train tomorrow's physicians in both the science and art of medicine with innovative programs. Our goal is also to provide outreach to meet the community needs to improve the quality of care and patient outcomes.

Each of our Internal Medicine Divisions can be explored at https://www.evms.edu/internal_medicine/#education

Specialty Advising: Internal Medicine

Are you competitive?

Competitiveness: Varies by program and location
Mean Step 1/2 score: 235/245 (EVMS Internal Medicine graduates 2014-18)
Mean Step 1/2 score: 235/248 (AAMC Charting Outcome Data 2020)
Total number of programs: 587
Interview timing: October-January
Away rotations: Not required
Research: Not required but helpful

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=3364)	Unmatched (n=89)
Mean number of contiguous ranks	12.4	3.9
Mean USMLE Step 1 score	**235**	**218**
Mean USMLE Step 2 score	**248**	**230**
Mean number of research experiences	3.3	3.0
Mean number of abstracts, presentations, publications	6.2	5.1
Mean number of volunteer experiences	7.3	5.8
Percentage who are AOA members	17.4	3.4
Percentage who have another graduate degree	17.7	18.3

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

INTERNAL MEDICINE Q&A

AWAY ROTATIONS: Are away rotations required? EVMS has a large selection of Internal Medicine rotations so it isn't required. **Will it help me match into a residency at the away institution?** In the senior year, audition rotations are unnecessary and sometimes risky. After all, simply getting stuck with a bad attending could ruin your chances of matching at that program. Concentrate more on LORs/personal statement!

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	**12:18 (30 students)**	**Data Pending**	**1-3 (range)**	**Blocks 2-7**

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Three or four, from Internal Medicine faculty, including the Clerkship Director, and if you have a mentor from a different department who knows you well, that's a good letter to include as well. LoRs reflect not only your accomplishments but also your ability to form meaningful relationships with faculty.

PATHWAY TO SUB-SPECIALTY: Remember, you are applying for Internal Medicine residency, not fellowship in a subspecialty. In addition, all subspecialists are, at heart, excellent general internists, so make sure you gain experience in different subspecialties. Nearly all applicants change their mind during residency about subspecialties, so if you're undecided, that's OK!

M1-M2 checklist:

☑ AAMC Careers in Medicine Assessment
☑ LGM / Shadow clinicians
☑ Attend specialty talk panels, workshops, and other advising sessions.
☑ Join student groups
☑ Begin research projects
☑ M1/M2 summer experience

M3-M4 checklist:

☑ Schedule a meeting with Internal Medicine Clerkship Directors by emailing the IM coordinators to formally request a letter before July 1 (M4). Also contact other faculty for letters (see Q&A section).

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/ alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

ADVISORS:
EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

COORDINATORS:
Kaitlyn Ray
RayKE@EVMS.EDU

Azucena Palomares
PalomaAB@EVMS.EDU

ALUMNI:
alumni@evms.edu

ACP RESOURCE

Specialty Advising: Internal Med/Pediatrics

Are you competitive?

Competitiveness: Competitive
Mean Step 1/2 score: 244/255 (EVMS med-peds graduates 2014-18)
Mean Step 1/2 score: 236/250 (AAMC Charting Outcome Data 2020)
Total number of programs: 77
Interview timing: October-January
Away rotations: Required
Research: Importance varies by program

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=300)	Unmatched (n=32)
Mean number of contiguous ranks	11.0	2.2
Mean USMLE Step 1 score	**236**	**224**
Mean USMLE Step 2 score	**250**	**240**
Mean number of research experiences	3.1	2.5
Mean number of abstracts, presentations, publications	4.8	3.9
Mean number of volunteer experiences	9.1	8.1
Percentage who are AOA members	24.3	12.5
Percentage who have another graduate degree	17.6	35.5

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

MED-PEDS Q&A

AWAY ROTATIONS: Are away rotations required? Yes! **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day - you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. This is particularly helpful for your competitive "reach" programs.

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	**3:2 (5 students)**	**Data Pending**	**1-2 (range)**	**Blocks 3-4**

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Three or four, from Pediatric faculty and Internal Medicine faculty. LoRs reflect not only your accomplishments but also your ability to form meaningful relationships with faculty.

GET INVOLVED: How do I show my interest in Med-Peds? From NMPRA: You can join the National Med-Peds Resident Association (NMPRA) and stay in touch with med-peds events and news. You can submit an article for the NMPRA newsletter, attend regional and national conferences, or start a local med-peds interest group at your home institution.

M1-M2 checklist:

☑ AAMC Careers in Medicine Assessment
☑ LGM / Shadow clinicians
☑ Attend specialty talk panels, workshops, and other advising sessions.
☑ Join student groups
☑ Begin research projects
☑ M1/M2 summer experience

M3-M4 checklist:

☑ July-Aug (M4):Schedule a meeting with Dr. Hooper (appointments: Rebecca Hastings) to review your **ERAS application** materials: Personal statement, CV, or ERAS draft, program list and letter writer list.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/ alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

ADVISORS:
EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

COORDINATORS:
Kaitlyn Ray
RayKE@EVMS.EDU

Azucena Palomares
PalomaAB@EVMS.EDU

ALUMNI:
alumni@evms.edu

RESOURCE:
https://medpeds.org

General Internal Medicine

INT417: Internal Medicine Acting Internship

Category: AI, Elective

Course Information

Course Director	Mark Flemmer, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital	**Duration**	4 weeks
Main Contact	Kaitlyn Ray rayke@evms.edu 757-446-8425	**# of Students**	4 per block
		Visiting Students	Yes
		Night Call	Yes
		Pre-Requisites/Restrictions	During interview season please contact Ms. Ray via email once you are notified of an interview. Please keep in mind that you are only allowed 3 interview days during the rotation.

Course Description

An advanced experience in general internal medicine, with the opportunity to select a subspecialty area. The student will function as an Acting Intern on the medical service.

Course Objectives

Intermediate Objectives:
1. To improve and advance the clinical skills.
2. To acquire the ability to reach a differential diagnosis and a relevant problem list at the end of a history and physical exam.
3. To acquire the ability to order relevant investigations.
4. To learn the indicators and complications of invasive procedures in Internal Medicine.
5. To learn the natural history (includes prognosis) of common disease.

Enabling Objectives:
1. Perform initial evaluation of the patient requiring admission to the hospital.
2. Develop differential diagnosis and institute management of common internal medicine problems.
3. Ability to interpret laboratory results.
4. Discuss progress and disposition as applied to a patient with a given disease.
5. Able to discuss clinical features on a pathophysiological basis.

Course Specifics

Report First Day Sentara Norfolk General Hospital, EVMS classroom, 2nd floor (Near GICU), no later than 8AM

Student Efforts

100% of time inpatient setting	48 hours/week of direct patient care
0-5% of time in trauma/ICU	5 hours/week of didactics
0% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation 100% clinical observation. A student trying for honors or receiving a failure, are required to take an oral exam with Dr. Mark Flemmer.

Additional Physicians Participating in Teaching Thomas Manser, MD; James Dixon, MD; Mitch Goodman, MD; Jody King, MD; Jennifer Ryal, MD; Brooke Hooper, MD; Mark Flemmer, MD; Sami Tahhan, MD; Matt Chakan, MD; Jason Dukes, MD; Aaron Mills, DO

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

INT418: Internal Medicine Acting Internship

Category: AI, Elective

Course Information

Course Director	Tajamul Hasan, MD	**Period Offered**	All Blocks
Location	Veteran's Affairs Medical Center, Hampton	**Duration**	4 weeks
Main Contact	Kaitlyn Ray rayke@evms.edu 757-446-8425	**# of Students**	1 per block
		Visiting Students	No
		Night Call	Yes
		Pre-Requisites/Restrictions	During interview season please contact Ms. Ray via email once you are notified of an interview. Please keep in mind that you are only allowed 3 interview days during the rotation.

Course Description

The purpose of this rotation is to provide the student an opportunity to function as an Acting Intern on the general medicine wards at the VA Medical Center. The student will admit patients, perform initial history and physical examinations, write all orders, discuss the case with an attending, make daily rounds with the attending physician and other members of the ward team and perform all necessary procedures. Skills to be obtained during this rotation include improved diagnostic techniques through history and physical examination and improved skills in therapy. Since continuity of care is essential to training, absences should be minimized during this elective.

Course Objectives

Intermediate Objectives:
1. To improve and advance the clinical skills.
2. To acquire the ability to reach a differential diagnosis and a relevant problem list at the end of a history and physical exam.
3. To acquire the ability to order relevant investigations.
4. To learn the indicators and complications of invasive procedures in Internal Medicine.
5. To learn the natural history (includes prognosis) of common disease.

Enabling Objectives:
1. Perform initial evaluation of the patient requiring admission to the hospital.
2. Develop differential diagnosis and institute management of common internal medicine problems.
3. Ability to interpret laboratory results.
4. Discuss progress and disposition as applied to a patient with a given disease.
5. Able to discuss clinical features on a pathophysiological basis.

Course Specifics

Report First Day Medical Service Office, Building 135, Room A110, VA Medical Center

Student Efforts
100% of time inpatient setting
0-5% of time in trauma/ICU
0% of time in outpatient setting

40 hours/week of direct patient care
5 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Nahid Rizvi, MD; Ian Chen, MD; Rachel Paul Jeyadhas, MD

Site Compliance

Hospital 1: Veteran's Affairs Medical Center, Hampton

INTTBD[1]: Internal Medicine

Category: AMB, Elective

Course Information

Course Director	A. Brooke Hooper, MD	**Period Offered**	All Blocks
Location	Sentara Ambulatory Care Clinic 130 Colley Ave, Norfolk VA 23510	**Duration**	2 or 4 weeks
		# of Students	1 per block
Main Contact	Kaitlyn Ray rayke@evms.edu 757-446-8425	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Through direct observation and practicing medicine under the supervision of Internal Medicine preceptors, the student will develop an accurate understanding of delivering ambulatory care in an underserved patient population. Students will be exposed to general internal medicine clinic, advanced ambulatory clinic, and various subspecialty clinics.

Course Objectives

At the end of the elective, the medical student should be able to:

1. Evaluate how internal medicine and its subspecialties can be applied in a practical setting.
2. Discuss how social determinants of health contribute to disease.
3. Discuss appropriate prevention, screening, and treatment measures for specific at-risk groups.
4. Identify cost-effective and evidence-based diagnosis and management options.
5. Adapt plans appropriately for patients with disadvantaged educational and socioeconomic backgrounds.
6. Execute an appropriate history, physical exam, oral presentation, and write-up in the ambulatory setting.
7. Discuss progress and disposition as applied to a patient with a given disease.
8. Demonstrate appropriate communication and psychosocial skills.
9. Demonstrate an ethical and professional attitude towards patients and their care.

Course Specifics

Report First Day Ambulatory Care Clinic (130 Colley Ave, Norfolk VA)

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
100% of time in outpatient setting

35 hours/week of direct patient care
0 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Sentara, Norfolk General

INTTBD^2: Internal Medicine

Category: Elective

Course Information

Course Director	Eli Arusi, MD	**Period Offered**	All Blocks
Location	Sentara Obici Hospital	**Duration**	4 weeks
Main Contact	Eli Arusi, MD eli.arusi@gmail.com	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	During interview season please contact Ms. Ray via email once you are notified of an interview. Please keep in mind that you are only allowed 3 interview days during the rotation.

Course Description

Through direct observation and practicing medicine under the supervision of Internal Medicine preceptors, the student will develop an accurate understanding of internal medicine as a discipline and potential career choice.

Course Objectives

At the end of the elective, the medical student should be able to:

1. Evaluate how internal medicine and its subspecialties can be applied in a practical setting.
2. Execute an appropriate, accurate and systematic history.
3. Demonstrate appropriate communication and psychosocial skills.
4. Demonstrate ability to skillfully perform physical examination appropriate to patient's history.
5. DSevelop differential diagnosis and institute management of common internal medicine problems.
6. Perform initial evaluation of the patient requiring admission to the hospital.'
7. Interpret laboratory results, simple X-rays, ECG and demonstrate knowledge of basic prescriptions appropriate for treatment.
8. Discuss progress and disposition as applied to a patient with a given disease.
9. Formulate oral presentations and medical write-ups that are complete, accurate and organized.

Course Specifics

Report First Day Contact course director

Student Efforts
100% of time inpatient setting
0% of time in trauma/ICU
0% of time in outpatient setting

hours/week of direct patient care
0 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Sentara Obici Hospital

INTTBD[3]: Rural Ambulatory Internal Medicine

Category: AMB, Elective

Course Information

Course Director	Thomas Guirkin, MD	**Period Offered**	Blocks 2-5, 7-9
Location	Southampton Medical Group - Internal Medicine 102 Fairview Drive, Suite A Franklin, VA 23851	**Duration**	2 or 4 weeks
		# of Students	1 per block
		Visiting Students	No
Main Contact	Kaitlyn Ray rayke@evms.edu 757-446-8425	**Night Call**	No
		Pre-Requisites/Restrictions	None

Course Description

This elective is designed to provide an in-depth experience in community/rural medicine. Student will work with a physician in a rural outpatient practice in internal medicine. Through direct observation and practicing medicine under the supervision of Internal Medicine preceptors, the student will develop an accurate understanding of delivering ambulatory care in a rural patient population.

Course Objectives

At the end of the elective, the medical student should be able to:

1. Identify special health conditions within the rural populations.
2. Identify the nutritional factors in rural population which contribute to their health problems.
3. Recognize the environment, family situations, and social structures as important contributions to the health status of an individual.
4. Describe the contribution poverty plays in the distribution of infections and chronic diseases, especially among rural populations.
5. Demonstrate health education skills.
6. Evaluate how internal medicine and its subspecialties can be applied in a practical setting.
7. Discuss how social determinants of health contribute to disease.
8. Discuss appropriate prevention, screening, and treatment measures for specific at-risk groups.
9. Identify cost-effective and evidence-based diagnosis and management options.
10. Adapt plans appropriately for patients with disadvantaged educational and socioeconomic backgrounds.
11. Execute an appropriate history, physical exam, oral presentation, and write-up in the ambulatory setting.
12. Discuss progress and disposition as applied to a patient with a given disease.
13. Demonstrate appropriate communication and psychosocial skills.
14. Demonstrate an ethical and professional attitude towards patients and their care.

Course Specifics

Report First Day Contact Kaitlyn Ray for reporting instructions.

Student Efforts

10% of time inpatient setting	30-50 hours/week of direct patient care
0% of time in trauma/ICU	0 hours/week of didactics
90% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation 100% clinical observation/documentation review

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Bon Secours

INT479: Internal Medicine

Category: AMB, Elective

Course Information

Course Director	Kusuma K. Nanduri, MD	**Period Offered**	Block 5-6
Location	12255 Fair Lakes Parkway Fairfax, VA 22033	**Duration**	4 weeks
		# of Students	1 per block
Main Contact	Jonathan Holland jonathan.m.holland@kp.org 301-816-5672	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Through direct observation and practicing medicine under the supervision of Internal Medicine preceptors, the student will develop an accurate understanding of internal medicine as a discipline and potential career choice.

Course Objectives

At the end of the elective, the medical student should be able to:

1. Evaluate how internal medicine and its subspecialties can be applied in a practical setting.
2. Execute an appropriate, accurate and systematic history.
3. Demonstrate appropriate communication and psychosocial skills.
4. Demonstrate ability to skillfully perform physical examination appropriate to patient's history.
5. Develop differential diagnosis and institute management of common internal medicine problems.
6. Perform initial evaluation of the patient requiring admission to the hospital.
7. Interpret laboratory results, simple X-rays, ECG and demonstrate knowledge of basic prescriptions appropriate for treatment.
8. Discuss progress and disposition as applied to a patient with a given disease.
9. Formulate oral presentations and medical write-ups that are complete, accurate and organized.

Course Specifics

Report First Day Fair Oaks Medical Center, 12255 Fair Lakes Pkwy, Fairfax, VA 22033. Please email one week beforehand.

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
100% of time in outpatient setting

40 hours/week of direct patient care
0 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Mahvash Mujahid, MD; Saurabh Gambhir, MD; Leena Kosandal, MD; Andaleeb Rahman, MD

Site Compliance

Hospital 1: Kaiser

INT481: Internal Medicine

Category: AMB, Elective

Course Information

Course Director	Seraphine Soosaimanickam, MBBS	**Period Offered**	Block 4
Location	10701 Rosemary Drive Manassas, VA 20109	**Duration**	4 weeks
		# of Students	1 per block
Main Contact	Jonathan Holland jonathan.m.holland@kp.org 301-816-5672	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Through direct observation and practicing medicine under the supervision of Internal Medicine preceptors, the student will develop an accurate understanding of internal medicine as a discipline and potential career choice.

Course Objectives

At the end of the elective, the medical student should be able to:

1. Evaluate how internal medicine and its subspecialties can be applied in a practical setting.
2. Execute an appropriate, accurate and systematic history.
3. Demonstrate appropriate communication and psychosocial skills.
4. Demonstrate ability to skillfully perform physical examination appropriate to patient's history.
5. Develop differential diagnosis and institute management of common internal medicine problems.
6. Perform initial evaluation of the patient requiring admission to the hospital.
7. Interpret laboratory results, simple X-rays, ECG and demonstrate knowledge of basic prescriptions appropriate for treatment.
8. Discuss progress and disposition as applied to a patient with a given disease.
9. Formulate oral presentations and medical write-ups that are complete, accurate and organized.

Course Specifics

Report First Day 10701 Rosemary Drive, Manassas VA 20109. Please email beforehand for details.

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
100% of time in outpatient setting

40 hours/week of direct patient care
0 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Jason Singh, MD; Priya Mathur, MD; Avtar Chana, MD

Site Compliance

Hospital 1: Kaiser

INT482: Internal Medicine

Category: AMB, Elective

Course Information

Course Director	Jonas P. Wiltz, MD	**Period Offered**	Blocks 6-11
Location	201 N. Washington St Falls Church, VA 22046	**Duration**	4 weeks
		# of Students	1 per block
Main Contact	Jonathan Holland jonathan.m.holland@kp.org 301-816-5672	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Through direct observation and practicing medicine under the supervision of Internal Medicine preceptors, the student will develop an accurate understanding of internal medicine as a discipline and potential career choice.

Course Objectives

At the end of the elective, the medical student should be able to:

1. Evaluate how internal medicine and its subspecialties can be applied in a practical setting.
2. Execute an appropriate, accurate and systematic history.
3. Demonstrate appropriate communication and psychosocial skills.
4. Demonstrate ability to skillfully perform physical examination appropriate to patient's history.
5. Develop differential diagnosis and institute management of common internal medicine problems.
6. Perform initial evaluation of the patient requiring admission to the hospital.
7. Interpret laboratory results, simple X-rays, ECG and demonstrate knowledge of basic prescriptions appropriate for treatment.
8. Discuss progress and disposition as applied to a patient with a given disease.
9. Formulate oral presentations and medical write-ups that are complete, accurate and organized.

Course Specifics

Report First Day Falls Church Medical Center, 201 N. Washington St, Falls Church, VA 22046.
Please email beforehand for details.

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
100% of time in outpatient setting

40 hours/week of direct patient care
0 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Merrell Sami, MD; Donna Lee, MD; Cassandra Sims, MD

Site Compliance

Hospital 1: Kaiser

INT493: Internal Medicine at KP Gaithersburg Category: AI, AMB, Elective

Course Information

Course Director	Julie Chen, MD	**Period Offered**	Blocks 5 & 9
Location	Gaithersburg Medical Center 655 Watkins Mill Rd Gaithersburg, MD	**Duration**	4 weeks
		# of Students	1 per block
		Visiting Students	No
Main Contact	Jonathan Holland jonathan.m.holland@kp.org 301-816-5672	**Night Call**	No
		Pre-Requisites/Restrictions	None

Course Description

Through direct observation and practicing medicine under the supervision of Internal Medicine preceptors, the student will develop an accurate understanding of internal medicine as a discipline and potential career choice. Students will have the opportunity to work with Kaiser Permanente Internal Medicine program faculty and residents.

Course Objectives

At the end of the elective, the medical student should be able to:

1. Gather the information necessary for care of a patient in a manner which is patient-centered, efficient and effective.
2. Formulate an appropriate assessment and develop an appropriate management plan for each patient.
3. Perform specified common procedures, demonstrating a knowledge of the indications, risks and benefits of the procedures in explanations to patients while appropriately obtaining informed consent.
4. Recognize when a patient is in a specific at-risk group and provide appropriate treatment and preventive measures.
5. Recognize patient safety issues and describe measures for preventing errors that may harm patients.
6. Demonstrate an understanding of the basic and clinical sciences necessary for medical practice
7. Use information systems to optimize care delivery and improve outcomes.
8. For a given medical problem use evidence-based medicine principles to select the best diagnostic and therapeutic plans.
9. Demonstrate effective interpersonal and communication skills with patients and their families.
10. Present to other health care providers a concise, orderly and coherent oral and written communication of the patient's unique clinical presentation in a manner appropriate to the clinical context.
11. Demonstrate an ethical and professional attitude toward patients and their care.
12. Function effectively as a member of the health care team, respecting the roles and skills of other team members, communicating appropriately and working effectively within the team.
13. Demonstrate a recognition of one's own limitations and a commitment to professional growth.

Course Specifics

Report First Day Gaithersburg Medical Center, 655 Watkins Mill Rd, Gaithersburg, MD 20879.
Please email beforehand for details.

Student Efforts

0% of time inpatient setting	40 hours/week of direct patient care
0% of time in trauma/ICU	0 hours/week of didactics
100% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Darrell Baranko, MD; Poonam Maru, DO; Kathleen Anderson, MD; Elisabeth Kramer, MD; Alex Dummett, MD

Site Compliance

Hospital 1: Kaiser

Cardiology

INT407: Cardiovascular Medicine

Category: Elective

Course Information

Course Director	JE Brush, MD	**Period Offered**	All Blocks
Location	Sentara, Leigh Hospital	**Duration**	4 weeks
Main Contact	Lena Seals lrseals1@sentara.com 757-507-8909	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

A busy consultative service, emphasizing clinical cardiology, clinical decision-making, intensive care cardiology, EKG reading and the proper use of cardiac testing.

Course Objectives

1. Introduction to a broad array of cardiology patients with a variety of common cardiology disorders.
2. Introduction to basic principles of clinical reasoning, using cardiology patients as examples.
3. Introduction to basic EKG reading and an understanding of the proper use of common cardiac tests and therapies.

Course Specifics

Report First Day Please call Lena at 757-507-8909 one week prior to your start date. She will provide the name and pager number of the physician that you will contact on your first day. Rounds start at 7am. Meet at Sentara Leigh Hospital on the 3rd floor - ICU.

Student Efforts

100% of time inpatient setting
10% of time in trauma/ICU
0% of time in outpatient setting

28 hours/week of direct patient care
2 hours/week of didactics
10 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching John P Parker, MD; Sanjay G Shah, MD; Luke Kohan, MD; Partha Manchikalapudi, MD; Ramanaiah Kakani, MD; Alan Banks, MD; Ronald Stine, MD

Site Compliance

Hospital 1: Sentara, Leigh Hospital

INT404: Cardiology

Category: Elective

Course Information

Course Director	Ronald McKechnie, MD	**Period Offered**	Blocks 3-5, 7-9
Location	Sentara, Norfolk General Hospital Sentara, Virginia Beach General Outpatient offices	**Duration**	4 weeks
		# of Students	1 per block
Main Contact	Jenn Woodard jmmatri1@sentara.com 757-282-4159	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Exposure to all areas of non-invasive and invasive cardiac procedures. Cardiology, including daily inpatient service exposure, consultative cardiology, cardiac transplantation, and electro-physiology.

Course Objectives

1. Take a detailed cardiovascular history, perform a good cardiovascular physical examination, order appropriate tests, and correlate these into a logical diagnosis and plan of management.
2. Detect symptoms and physical findings of congestive heart failure, hypertension, ischemic and valvular heart diseases.
3. Recognize and diagnose chamber enlargement, ST-segment abnormalities, arrhythmias, conduction defects and digitalis toxicity on the electrocardiogram.
4. Recognize enlargement of great vessels and heart chambers, and signs of pulmonary venous congestion, interstitial and alveolar edema on chest x-rays.
5. Understand cardiac hemodynamics and be able to correlate these events with cardiac symptoms, physical findings and the electrocardiogram.
6. Understand the basic pharmacology, including indications, contraindications, and dose of common cardiac drugs, including digitalis, antihypertensive, and antiarrhythmic drugs.
7. Know indications for and develop understanding of interpretation of various testing modalities in cardiovascular disease.
8. Know indications and limitations of Cardiac Transplantations.

Course Specifics

Report First Day	Contact Jenn Woodard for details.	
Student Efforts	70% of time inpatient setting 10% of time in trauma/ICU 20% of time in outpatient setting	30-35 hours/week of direct patient care 1-2 hours/week of didactics 3-5 hours/week of asynchronous activities
Evaluation	95% clinical observation; 5% suggested article discussion at the end of course	
Additional Physicians Participating in Teaching	Deepak R. Talreja, MD; David Adler, MD; Ramin Alimard, MD; Matt Summers, MD; Scott Robertson, MD; Paul Lavigne, MD	

Site Compliance

Hospital 1: Sentara, Norfolk General
Hospital 2: Sentara, Virginia Beach General

INT480: Internal Medicine - Cardiology

Category: AMB, Elective

Course Information

Course Director	Jason Rashkin, MD	**Period Offered**	Blocks 1, 4, 5, 8, 9
Location	8008 Westpark Drive, McLean VA 22102	**Duration**	4 weeks
Main Contact	Jonathan Holland jonathan.m.holland@kp.org 301-816-5672	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Through direct observation and practicing medicine under the supervision of Cardiology preceptor, the student will develop an accurate understanding of cardiology and cardiac electrophysiology, as a discipline and potential career choice.

Course Objectives

At the end of the elective, the medical student should be able to:

1. Take a detailed cardiovascular history, perform a good cardiovascular physical examination, order appropriate tests, and correlate these into a logical diagnosis and plan of management.
2. Detect symptoms and physical findings of congestive heart failure, hypertension, ischemic valvular heart diseases.
3. Understand the theory and interpretation of EKG scalar electrocardiography.
4. Recognize mitral valvular abnormalities, chamber enlargement, and ventricular overload on the echocardiogram.
5. Understand cardiac hemodynamics and be able to correlate these events with cardiac symptoms, physical findings and the electrocardiogram.
6. Understand the basic pharmacology, including indications, contraindications, and dose of common cardiac drugs, including digitalis, antihypertensive, and antiarrhythmic drugs.
7. Recognize and diagnose chamber enlargement, ST-segment abnormalities, arrhythmias, conduction defects and digitalis toxicity on the electrocardiogram.
8. Recognize common problems encountered in patients with permanent pacemakers.
9. Have an understanding of problems involved in ambulatory monitoring.

Course Specifics

Report First Day Tysons Corner Medical Center, 8008 Westpark Dr, McLean, VA 22102. Please email beforehand for details.

Student Efforts

30% of time inpatient setting
0% of time in trauma/ICU
70% of time in outpatient setting

40 hours/week of direct patient care
0 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Kaiser

Critical Care Medicine

INT472: Critical Care Medicine

Category: CC, Elective

Course Information

Course Director	Paul E Marik, MD, FCCP, FCCM	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital	**Duration**	2 weeks
Main Contact	Ylonda Boatright boatriy@evms.edu 757-446-7439	**# of Students**	4 per two week block
		Visiting Students	Yes
		Night Call	Yes
		Pre-Requisites/Restrictions	None

Course Description

Fourth-year students involved in the Intensive Care Unit Rotation will be expected to round with the Intensive Care Unit Team. Students will work under the supervision of upper level residents and Pulmonary/Critical Care Medicine Faculty. This rotation will allow students to see critically ill patients and gain experience in managing mechanical ventilation, interventions, such as nutritional support.

Course Objectives

1. The students will learn basic knowledge of Intensive Care Medicine including Cardiac and Pulmonary support, indications for enteral and parenteral nutrition, continuous and intermittent dialysis techniques, and appropriate antibiotic use in the Intensive Care Unit.
2. Students will acquire experience in placing arterial and venous catheters, x-ray interpretation, and an understanding of the technique of oral intubation and bronchoscopy.

Course Specifics

Report First Day
General Intensive Care Unit, 10h Floor River Pavilion, Sentara Norfolk General Hospital.
Contact Ylonda Boatright, boatriy@evms.edu one week prior to rotation start to obtain additional objectives and instructions for the rotation. Students are asked to review the ICU handbook prior to start of rotation.

Student Efforts
100% of time inpatient setting
100% of time in trauma/ICU
0% of time in outpatient setting
50 hours/week of direct patient care
10 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation
100% clinical observation

Additional Physicians Participating in Teaching
Joshua Sill, MD; Matthew Bernens, MD; Xian Qiao, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

INT491: Critical Care Medicine

Category: CC, Elective

Course Information

Course Director	Aileen Tiro, DO	**Period Offered**	Blocks 2, 4, 7, 9
Location	Sentara, Leigh Hospital	**Duration**	4 weeks
Main Contact	Ylonda Boatright boatriy@evms.edu 757-446-7439	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Fourth-year student involved in the Intensive Care Unit rotation will be expected to round with the Intensive Care Unit Team. Students will work under the supervision of Pulmonary/Critical Care Medicine Faculty. This rotation will allow students to see critically ill patients and gain experience in managing mechanical ventilation, interventions- such as vasopressors, nutritional support, and sedation.

Students will participate in one weekend of rounding call during the rotation.

Course Objectives

1. Learn basic knowledge of Intensive Care Medicine including cardiac and pulmonary support
2. Know the indications for enteral and parenteral nutrition
3. Understand intermittent dialysis techniques
4. Prescribe appropriate antibiotics for critically ill patients
5. Place arterial and venous catheters
6. Interpret chest x-rays
7. Understand the technique of oral intubation and bronchoscopy

By the end of the critical care rotation, the learners will be able to demonstrate the ability to:

1. Recognize a patient requiring urgent or emergent care and initiate evaluation and management
2. Develop a thorough, systematic approach to the rapid recognition, evaluation, treatment, and disposition of the critically ill or injured patient.
3. Collaborate as a member of an interprofessional team
4. Give or receive a patient handover to transition care responsibility
5. Obtain informed consent for tests and/or procedures
6. Perform general procedures of a physician

Course Specifics

Report First Day Contact Ylonda Boatright 2 weeks prior to start of course

Student Efforts

100% of time inpatient setting	50+ hours/week of direct patient care
100% of time in trauma/ICU	1-3 hours/week of didactics
0% of time in outpatient setting	N/A hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Joseph Gresens, MD; Arpana Mahalingashetty, MD; Mary Baker, MD; Niall Crowley, MD

Site Compliance

Hospital 1: Sentara, Leigh Hospital

INT492: Critical Care Medicine

Category: CC, Elective

Course Information

Course Director	Krishna C. Thandra, MBBS	**Period Offered**	Blocks 2, 9
Location	Sentara, Virginia Beach General Hospital	**Duration**	2 or 4 weeks
Main Contact	Ylonda Boatright boatriy@evms.edu 757-446-7439	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Open to students pursuing categorical Internal Medicine residency only

Course Description

Fourth-year student involved in the Intensive Care Unit rotation will be expected to round with the Intensive Care Unit Team. Students will work under the supervision of Pulmonary/Critical Care Medicine Faculty. This rotation will allow students to see critically ill patients and gain experience in managing mechanical ventilation, interventions- such as vasopressors, nutritional support, and sedation.

Course Objectives

1. Learn basic knowledge of Intensive Care Medicine including cardiac and pulmonary support
2. Know the indications for enteral and parenteral nutrition
3. Understand intermittent dialysis techniques
4. Prescribe appropriate antibiotics for critically ill patients
5. Place arterial and venous catheters
6. Interpret chest x-rays
7. Understand the technique of oral intubation and bronchoscopy

By the end of the critical care rotation, the learners will be able to demonstrate the ability to:

1. Recognize a patient requiring urgent or emergent care and initiate evaluation and management
2. Develop a thorough, systematic approach to the rapid recognition, evaluation, treatment, and disposition of the critically ill or injured patient.
3. Collaborate as a member of an interprofessional team
4. Give or receive a patient handover to transition care responsibility
5. Obtain informed consent for tests and/or procedures
6. Perform general procedures of a physician

Course Specifics

Report First Day Contact Ylonda Boatright 2 weeks prior to start of course

Student Efforts

100% of time inpatient setting
100% of time in trauma/ICU
0% of time in outpatient setting

Varies hours/week of direct patient care
0 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Sentara, Virginia Beach General Hospital

INT494: Virtual Critical Care Medicine

Category: CC, Elective

Course Information

Course Director	Brooke Hooper, MD	**Period Offered**	All Blocks
Location	Virtual	**Duration**	Longitudinal for 2 weeks credit
Main Contact	Aileen Shafer shaferam@evms.edu 757-446-5050	**# of Students**	Unlimited
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Designed to prepare students to better participate in their intensive care unit (ICU) rounds. This virtual course features professionally narrated modules with clear learning objectives, engaging case studies, interactive questions, and a list of additional resources for further exploration. An extensive topic selection is covered with lectures developed by content experts on each subject.

There are two components to this course:
1. Online Modules
2. Skills-Based Sessions

Students will need to successfully complete both components of the course. The skills-based sessions will be available as sessions during the TIPS: Residency weeks in Block 10.

Course Objectives

Upon completion of the course, participants should be able to:
1. Recognize emergent conditions and describe appropriate interventions
2. Analyze case scenarios and explain treatment options
3. Recommend treatment strategies for critically ill patients based on medical history, physical examination, and diagnostic data

Course Specifics

Report First Day Contact course contact for more information and log-in information. www.mysccm.org

Student Efforts

0% of time inpatient setting	0 hours/week of direct patient care
0% of time in trauma/ICU	5 hours/week of didactics
0% of time in outpatient setting	20-30 hours/week of asynchronous activities

Evaluation Successful completion of the virtual course and skills-based sessions

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Non-hospital experience

Endocrinology

INT476: Clinical Endocrinology

Category: AMB, Elective

Course Information

Course Director	David C. Lieb, MD	**Period Offered**	All Blocks
Location	Strelitz Diabetes Center Sentara, Norfolk General Hospital Sentara Heart Hospital	**Duration**	2 or 4 weeks
		# of Students	1-2 per block
		Visiting Students	No
Main Contact	Natalie Gray graynr@evms.edu 757-446-5910	**Night Call**	No
		Pre-Requisites/Restrictions	None

Course Description

The endocrine elective will expose the student to a comprehensive spectrum of endocrine conditions. The student will see a broad range of endocrine diseases, including type 1 and type 2 diabetes and their complications, thyroid disorders, conditions affecting both male and female reproduction, obesity, adrenal and pituitary gland disease, neuroendocrine tumors and their associated syndromes, and conditions involving bone and calcium metabolism. Students will be involved in both initial patient visits in the clinic and in follow-up visits. They will also participate as a member of the endocrine consult service for a portion of the elective, and will write and present patient notes for the consult attending to review. Students are encouraged to attend a variety of endocrine-focused conferences during their elective time, including endocrine grand rounds, the endocrine core lecture series, journal club and endocrine case conference.

Course Objectives

1. Perform the initial assessment including history and clinical presentation and development of differential assessments of patients referred for concerns of endocrine disease
2. Know common physical exam findings associated with common endocrine conditions
3. Know the appropriate review of systems for endocrine disease
4. Learn the diagnostic approach and common clinical tests for frequently seen conditions in outpatient endocrinology
5. Understand the diagnostic workup and follow-up of patients with more complex inpatient endocrine disease
6. Understand the role of a consultant

Course Specifics

Report First Day Please contact Natalie Gray for details (757) 446-5910 or graynr@evms.edu.

Student Efforts

50% of time inpatient setting
0% of time in trauma/ICU
50% of time in outpatient setting

28 hours/week of direct patient care
4 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Elias Siraj, MD; Romesh Khardori, MD; Aaron Nelson, MD

Site Compliance

Hospital 1: Sentara, Virginia Beach General Hospital

Gastroenterology

INT443: Digestive and Liver Diseases

Category: Elective

Course Information

Course Director	F. Taylor Wootton, MD	**Period Offered**	All Blocks
Location	Sentara, Leigh Hospital Sentara, Norfolk General Hospital	**Duration**	4 weeks
		# of Students	2 per block
Main Contact	Donna Beck donnab@glstva.com 757-961-1127	**Visiting Students**	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

An intensive clinical experience in gastroenterology and hepatology, heavily weighted to inpatient consultation and management of primary, secondary and tertiary level care problems. Cognitive and diagnostic approaches to patients with digestive and liver diseases are emphasized.

Course Objectives

1. To provide a rich and intensive clinical experience in digestive-liver diseases and nutritional support.
2. To integrate basic physiology, pathophysiology and clinical medicine at the bedside.
3. To emphasize the importance and complementary nature of cognitive and procedural diagnostic testing.
4. To become familiar with the basic GI-liver textbooks, journals and their use as aids in clinical problem solving, conference design and writing case reports.

Course Specifics

Report First Day Sentara Norfolk General Hospital, GI Station, 8 AM

Student Efforts

90% of time inpatient setting
10% of time in trauma/ICU
0% of time in outpatient setting

40 hours/week of direct patient care
5 hours/week of didactics
3 hours/week of asynchronous activities

Evaluation 85% clinical observation, 15% oral

Additional Physicians Participating in Teaching Michael J. Ryan, MD; David A. Johnson, MD; Kelvin Hornbuckle, MD; Whitney D. Brooks, MD; Syed Ismail M. Thiwan, MD; John H. Smith, MD; Parth J. Parekh, MD; Alan Tiev, MD

Site Compliance

Hospital 1: Sentara, Leigh Hospital
Hospital 2: Sentara, Norfolk General Hospital

Infectious Disease

INT452: Infectious Disease Consult

Category: Elective

Course Information

Course Director	Catherine Derber, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital	**Duration**	4 weeks
Main Contact	Kaitlyn Ray rayke@evms.edu 757-446-8425	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	Students must have a pager during this rotation. During interview season please contact Ms. Ray via email once you are notified of an interview. Please keep in mind that you are only allowed 3 interview days during the rotation.

Course Description

This elective will provide an introduction to infectious disease. Emphasis will be on the evaluation of patients with a variety of infections on the inpatient wards including endocarditis, meningitis, nosocomial infectious, antibiotic resistance and osteomyelitis.
A set of reference materials covering the major aspects of Infectious Disease will be provided to each student.

Course Objectives

1. To become familiar with the signs and symptoms, and differential diagnosis of infectious disease.
2. To become familiar with the services of the microbiology laboratory and the cost effective use of lab tests.
3. To learn the safe, cost effective use of anti-microbial agents.

Course Specifics

Report First Day Contact two weeks prior to the start of the elective

Student Efforts

100% of time inpatient setting	45 hours/week of direct patient care
10% of time in trauma/ICU	2 hours/week of didactics
0% of time in outpatient setting	N/A hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Ronald Flenner, MD; Patrick Haggerty, MD; Udip Dahal, MD; Barry Rittman, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

INT468: Clinical HIV/AIDS

Category: AMB, Elective

Course Information

Course Director	Catherine Derber, MD	**Period Offered**	All Blocks
Location	EVMS Department of Internal Medicine	**Duration**	4 weeks
Main Contact	Kaitlyn Ray rayke@evms.edu 757-446-8425	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

This elective includes a comprehensive approach to HIV/AIDS care beginning with initial diagnosis, moving through preventative care, and dealing with end-stage processes and death related issues. There is a strong focus on outpatient experience but hospital care/teaching will also be provided. Teaching will be on a one-on-one basis for patient care. Reading topics and slide collections will be provided.

Course Objectives

1. To develop clinical expertise in diagnosis and treatment of HIV-related immune compromise and opportunistic infections.
2. To understand and implement preventative measures and health maintenance for HIV-infected individuals.
3. To become familiar with adjunct therapies and psycho-social aspects of HIV care from a physician's standpoint and the patient's.

Course Specifics

Report First Day Contact two weeks prior to the start of the elective

Student Efforts

0% of time inpatient setting	30 hours/week of direct patient care
0% of time in trauma/ICU	2 hours/week of didactics
100% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Ronald Flenner, MD; Patrick Haggerty, MD; Udip Dahal, MD; Barry Rittman, MD;

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

Nephrology

INT478: Nephrology

Category: Elective

Course Information

Course Director	Thomas McCune, MD, FACP	**Period Offered**	All Blocks
Location	Nephrology Associates of Tidewater Sentara, Norfolk General Hospital	**Duration**	2 or 4 weeks
		# of Students	1 per block
Main Contact	Chrisandra Knight knightcs@evms.edu 757-446-0375	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

The student will make clinical rounds on patients on the inpatient EVMS Renal and Nephrology Assoc. Consult Service. The M4 student will also be given selected lectures and will be given the opportunity for presenting a clinical topic or journal article at one of our division renal conferences.

Course Objectives

Intermediate Objectives:

1. To learn the pathophysiology of acute renal failure in the hospitalized patient with renal disease.
2. To learn the management of acute and chronic renal failure in the hospitalized patient.
3. To learn the evaluation of acid-base, fluid and electrolyte imbalance and their management.
4. To understand the rational for the choices of different forms of treatment in acute renal failure and end-stage renal disease.
5. To learn the management of hypertension in the hospitalized patient.
6. Students will have experience with inpatient and outpatient care of kidney and pancreas transplantation.

By the end of the elective the student should be able to:

1. Assess renal function in patients and plan a rational investigative course using both non-invasive and invasive techniques to determine the cause and extent of disease.
2. To formulate a plan for the short and long term management of the hospitalized renal patient.
3. Understand the evaluation of an acid-case issue.
4. Understand the evaluation of common electrolyte abnormalities.

Course Specifics

Report First Day
Unless notified, you will report to the Transplant Clinic at 8am.
Please contact Chrisandra Knight: knightcs@evms.edu with any questions.

Student Efforts

30% of time inpatient setting	40 hours/week of direct patient care
30% of time in trauma/ICU	3 hours/week of didactics
40% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation
100% clinical observation

Additional Physicians Participating in Teaching
Harlan Rust, MD; Suresh Rijhwani, MD; Varun Malhotra, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

Pulmonary Medicine

INT433: Clinical Pulmonary Medicine

Category: Elective

Course Information

Course Director	Joshua Sill, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital	**Duration**	4 weeks
Main Contact	Ylonda Boatright boatriy@evms.edu 757-446-7439	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Students will round on a daily basis with the Pulmonary attending, fellow, and resident. The students will be responsible for maintaining contact with a group of patients on the Pulmonary Consult Service. Students will also be expected to evaluate new consultations in the inpatient and outpatient sphere under the supervision of the pulmonary resident and attending.

Students will attend academic conferences to include thoracic multidisciplinary conference, pulmonary case conference, pulmonary didactics, and pulmonary/critical care journal club.

Course Objectives

1. Students will become familiar with basic knowledge of pulmonary infections, inflammatory lung disease, pulmonary vascular disease and neoplasms of the lung and pleura.
2. Students will learn the indications, contraindications, and technique of pulmonary function testing, Methacholine Challenge testing, radiographic evaluation and bronchoscopy.

Course Specifics

Report First Day

Sentara Norfolk General Hospital, Pulmonary Function Lab. Page the on call pulmonary fellow at 475-4754. Contact Ylonda Boatright, (boatriy@evms.edu) 446-7439 one week prior to start of rotation to obtain additional objectives and instructions for the rotation.

Student Efforts

90% of time inpatient setting
5% of time in trauma/ICU
5% of time in outpatient setting

40 hours/week of direct patient care
4 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation

Clinical observation, participation on rounds, and observations of interactions with patients, families and care team members

Additional Health Professionals Participating in Teaching

Matthew Bernens, MD; Xian Qiao, MD; Anthony Quaranta, MD; Timothy Fusiak, MD; Andrew Githaiga, MD; Sherif El-Mahdy, MD; Anirudh Aron, MD; Michael Eggert, MD; Zachary Pawlikowski, MD; Allison Wastak, NP; ICU/Pulmonary Fellows and Internal Medicine Residents

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

Sleep Medicine

INTTBD[4]: Sleep Medicine

Category: Elective

Course Information

Course Director	Ignacio Ripoll, MD, FACP, FACCP	**Period Offered**	All Blocks
Location	Sleep Specialists of Tidewater, 6025 Providence Road, Virginia Beach, VA	**Duration**	2 weeks
		# of Students	1 per block
Main Contact	Ignacio Ripoll, MD FACP, FACCP Ripoll.Ignacio.Ripoll@gmail.com 757-681-2240	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

The course will expose students to diagnostic work-ups and treatment of patients presenting with pulmonary, obesity, and or sleep disorders. During the two-week elective, students will participate in the work-up and treatment of patients presenting with a variety of pulmonary and sleep disorders; many of those patients also suffer from obesity and related diseases. Students will review pulmonary function tests, chest X-Rays and CAT scans, polysomnographic records, multiple sleep Latency Tests, laboratory work, and will be present during the patient visit and allow to interact with the patient, family and physician; and assist in the formulation of a diagnosis and treatment plan.

Course Objectives

1. To become knowledgeable concerning the pathophysiology, and differential diagnosis of patients presenting with pulmonary, sleep disorders and obesity.
2. To become familiar with the technical procedures of a diagnostic polysomnogram and pulmonary function testing.
3. To develop skill in the art of patient/physician interactions, differential diagnosis, evaluation, and treatment.
4. To become familiar with pharmacological, surgical, dental, medical and behavioral treatments of the medical disorders mentioned above.

Course Specifics

Report First Day	Contact course director	
Student Efforts	0% of time inpatient setting 0% of time in trauma/ICU 100% of time in outpatient setting	25 hours/week of direct patient care 25 hours/week of didactics 0 hours/week of asynchronous activities
Evaluation	Direct observation, interactions with patient, physician, and office/laboratory staff	
Additional Health Professionals Participating in Teaching	None	

Site Compliance

Hospital 1: Bayview

Department of Neurology

Members of the Neurology Department are involved in the education of both medical students and residents, offering preclinical and clinical instruction in neuroscience, physical examination and diagnosis, teaching conferences and elective rotations.

The Neurology Department also conducts research regarding neurological complications of diabetes, management of stroke and epilepsy, and headaches and seizures in children.

Specialty Advising: Neurology

Are you competitive?

Competitiveness: Competitive
Mean Step 1/2 score: 223/241 (EVMS neurology graduates 2014-18)
Mean Step 1/2 score: 232/245 (AAMC Charting Outcome Data 2020)
Total number of programs: 126
Interview timing: October-January
Away rotations: Case-by-Case basis
Research: Helpful

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=421)	Unmatched (n=10)
Mean number of contiguous ranks	12.8	5.5
Mean USMLE Step 1 score	**232**	**223**
Mean USMLE Step 2 score	**245**	**234**
Mean number of research experiences	3.6	3.6
Mean number of abstracts, presentations, publications	7.2	7.0
Mean number of volunteer experiences	7.6	6.1
Percentage who are AOA members	11.1	11.1
Percentage who have another graduate degree	16.6	11.1

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

NEUROLOGY Q&A

AWAY ROTATIONS: Are away rotations required? No, but they may or may not be recommended. This is an individual decision based on your competitiveness and other factors. Set an appointment with the Associate Dean or your specialty advisor to discuss the pros/cons.

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	1:0 (1 students)	Data Pending	1 (range)	Block 3

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Three, with at least one from the neurology chair, and if you have a mentor from a different department who knows you well, that's a good letter to include as well. LoRs reflect not only your accomplishments but also your ability to form meaningful relationships with faculty.

M1-M2 checklist:

☑ AAMC Careers in Medicine Assessment
☑ LGM / Shadow clinicians
☑ Attend specialty talk panels, workshops, and other advising sessions.
☑ Join student groups
☑ Begin research projects
☑ M1/M2 summer experience

M3-M4 checklist:

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/ alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

NEURO ADVISORS: EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

NEURO ALUMNI:
alumni@evms.edu

AAN RESOURCE

NEU404: Clinical Adult Neurology

Category: AMB, Elective

Course Information

Course Director	Daniel Cohen, MD	**Period Offered**	Blocks 1-4
Location	Sentara, all regional locations Regional clinics with community partners	**Duration**	4 weeks
		# of Students	1 per block
Main Contact	Daniel Cohen, MD cohend@evms.edu 757-252-9015	**Visiting Students**	Yes
		Night Call	No
		Pre-Requisites/Restrictions	Pursuing residency in Neurology or Neurosurgery

Course Description

Clinical neurology in the outpatient and inpatient settings in cooperating hospitals. The students will evaluate and follow neurology consultations in the hospital and assist in the neurology clinic. Specific reviews of various neurological illnesses will be made. Opportunities exist for observation in diagnostic laboratories (e.g. Epilepsy Monitoring Unit, Autonomic Lab, EMG Lab, etc.)

Course Objectives

The primary goal will be to acquire competence in the performance of the neurological examination, i.e., assessment of mental status, cranial nerves, coordination/station/gait, motor system, reflexes, and sensation. A secondary objective will be to obtain exposure to common neurological conditions such as headache, cerebrovascular disease, seizure disorders, dementia, coma, demyelinating disease, extrapyramidal disease, and peripheral neuropathy.

Course Specifics

Report First Day Email Dr. Cohen to arrange

Student Efforts

0-25% of time inpatient setting
0% of time in trauma/ICU
75-100% of time in outpatient setting

20-40 hours/week of direct patient care
0 hours/week of didactics
0-20 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Kamal Chemali, MD; Philip Davenport, MD; Hua Wang, MD; Bruno Maton, MD; Pamela Whiting Evans, MD; Nayeem Karim, DO; Andrew Galbreath, DO; Amelito Malapira, MD; Michelle Kuczma, DO; Karen Thomas, DO; Soham Sheth, MD; Robert Lanoue, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital
Hospital 2: Sentara, Leigh Hospital
Hospital 3: Sentara, Princess Anne Hospital
Hospital 4: Sentara, Virginia Beach General Hospital
Hospital 5: Sentara, Obici Hospital

Department of Obstetrics & Gynecology

Welcome to the EVMS Obstetrics and Gynecology. We offer a broad spectrum of obstetrical and gynecological health care services and our excellent team of physicians, educators, and researchers is dedicated to improving quality of life for women of all ages.

Our mission:

- To provide the highest caliber health care and patient services available to women in southeastern Virginia and northeastern North Carolina.
- To serve the community through advanced biomedical research and outreach educational programs benefiting our women patients.
- To educate medical students, residents, fellows, and community faculty on issues regarding all aspects of obstetrics, gynecology, women's health, and preventive health care measures.

Our faculty is committed to pursuing our mission at the highest levels and many are recognized nationally/internationally for their efforts. Our pioneering research in reproductive medicine is recognized globally, our ultrasound research in Maternal-Fetal Medicine is among the most advanced in the world, and our other specialty divisions are also active in cutting edge clinical research. Our goal is to provide a first class training and research experience for future obstetricians and gynecologists, preparing them equally well for both academic and private pursuits.

If you are interested in our program, consider applying for one of the M4 Electives in the Department of OB-GYN. Electives can be offered almost any time of year, as the schedules are not strictly established. Current EVMS students have priority, and they fill on a first-come, first-served basis. The full elective is four weeks long, but exceptions can be made for two weeks of credit if this works better with your schedule.

To learn more about the Department visit: https://www.evms.edu/obstetrics_and_gynecology/#education

Specialty Advising: Obstetrics & Gynecology

Are you competitive?

Competitiveness: Competitive
Mean Step 1/2 score: 230/242 (EVMS OBGYN graduates 2014-18)
Mean Step 1/2 score: 232/248 (AAMC Charting Outcome Data 2020)
Total number of programs: 275
Interview timing: October-January
Away rotations: Not required
Research: Less important but helpful

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=1027)	Unmatched (n=159)
Mean number of contiguous ranks	12.2	6.8
Mean USMLE Step 1 score	**232**	**222**
Mean USMLE Step 2 score	**248**	**238**
Mean number of research experiences	3.9	3.5
Mean number of abstracts, presentations, publications	6.0	4.2
Mean number of volunteer experiences	9.1	7.8
Percentage who are AOA members	16.6	3.8
Percentage who have another graduate degree	19.3	19.6

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

OB/GYN Q&A

AWAY ROTATIONS: Are away rotations required? EVMS has a large selection of OBGYN rotations so it isn't required. **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day – you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. This is particularly helpful for your competitive "reach" programs.

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	**7:2 (9 students)**	**Data Pending**	**1-2 (range)**	**Blocks 2-7**

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Three or four, including one from the OB chair, and if you have a mentor from a different department who knows you well, that's a good letter to include as well. LoRs reflect not only your accomplishments but your ability to form meaningful relationships with faculty.

RESEARCH: Research is not required, but having a scholarly activity such as a research, community service, or quality improvement project can help set you apart from other applicants. NOTE: At a residency interview, you must be able to describe the work in detail.

M1-M2 checklist:

- ☑ AAMC Careers in Medicine Assessment
- ☑ LGM / Shadow clinicians
- ☑ Attend specialty presentations
- ☑ Join student groups
- ☑ Begin research projects
- ☑ M1/M2 summer experience

M3-M4 checklist:

☑ Schedule a meeting with the OB/GYN chair (for contact information, see specialty advisor list, info below) to formally request a letter.

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

OBGYN ADVISORS: EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

COORDINATOR:
Tara Chauhan
chauhatp@evms.edu

OBGYN ALUMNI:
alumni@evms.edu

RESOURCE:
https://www.acog.org/

OBG400: Advanced Clerkship in Clinical Obstetrics and Gynecology

Category: AI, Elective

Course Information

Course Director	Gloria Too, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital	**Duration**	4 weeks
Main Contact	Tara Chauhan chauhatp@evms.edu 757-446-7902	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	Yes; 2 overnight call shifts during the four-week rotation
		Pre-Requisites/Restrictions	None

Course Description

This acting internship will give students the opportunity for direct inpatient management of patients at Sentara Norfolk General Obstetric Unit, primarily on Labor and Delivery. The faculty will be pleased to attempt to tailor a program to the student's particular interest, including the opportunity for outpatient clinics as desired. Students will be expected to take 2 overnight call shifts during the four-week rotation at Sentara Norfolk General Labor and Delivery.

Labor and Delivery Acting Intern Schedule*

Monday:	5:30am – 5:30pm	Labor and Delivery
Tuesday:	5:30am – 5:30pm	Labor and Delivery
Wednesday:	5:30am – 5:30pm	Labor and Delivery
Thursday:	5:30am – 8:00am	Labor and Delivery
	8:00am – 12:00pm	Didactics
	12:00pm – 5:30pm	Labor and Delivery
Friday:	5:30am – 5:30pm	Labor and Delivery

**Schedule may be altered by overnight call shifts*

In the last week of the rotation, the student will be expected to sit down with the course director for an oral exam.

Course Objectives

1. To increase and reinforce the basic core knowledge of Obstetrics.
2. To increase skills in clinical evaluation and management.
3. To increase technical skills in Obstetrics and Gynecology, such as pelvic exam and obstetric ultrasound.

Course Specifics

Report First Day SNGH L&D, per instructions of Chief Resident

Student Efforts
100% of time inpatient setting
0% of time in trauma/ICU
0% of time in outpatient setting

53 hours/week of direct patient care
4 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Alfred Abuhamad, MD; Camille Kanaan, MD; Lea Porche, MD; Malgorzata Mlynarczyk, MD; Steven Warsof, MD; Margarita de Veciana, MD; Ray Abinadar, MD; Juliana Martins, MD; Elizabeth Seagraves, DO; Stephen Davis, MD; Renee Morales, MD; Andrew Moore, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

OBG417: Obstetrics & Gynecology

Category: AMB, Elective

Course Information

Course Director	Pritha Workman, MD	**Period Offered**	Blocks 5, 8, 9
Location	6501 Loisdale Court, Springfield, VA	**Duration**	4 weeks
Main Contact	Jonathan Holland jonathan.m.holland@kp.org 301-816-5672	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

This elective permits the assumption of greater patient responsibility on the part of the medical student in the outpatient setting. This elective is recommended if a student is interested in pursuing a residency in Ob/Gyn and desires a more in-depth exposure to the specialty. The faculty will be pleased to attempt to tailor a program to the student's particular interest, but the basic usual expectation should be advanced clinical management and reinforcement of cognitive material and problem solving skills.

Course Objectives

1. Be cognizant of the social and health policy aspect of women's health (ethical issues, sterilization, abortion, domestic violence; adolescent care regarding STDs, contraception and pregnancy).
2. Conduct a medical interview and accurate physical exam with emphasis on obstetrics and gynecology.
3. Understand current contraceptive technology.
4. Provide a differential diagnosis of an 'acute abdomen'- pelvic infection, ectopic pregnancy, adnexal torsion, appendicitis, diverticulitis, renal calculi, etc.
5. Gain greater competence in both acute outpatient ambulatory care treatment.
6. Perform supervised prenatal care to assess fetal wellbeing using ultrasound and doppler.
7. To provide comprehensive counseling to patients regarding postpartum care, contraceptive options, and prevention of sexually transmitted diseases.

Course Specifics

Report First Day Please call before arrival to establish location

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
100% of time in outpatient setting

40 hours/week of direct patient care
0 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation and oral feedback

Additional Physicians Participating in Teaching Nahed Ezmerli, MD; Jennifer Biggs, MD; Carolyn Payne, MD; Megan Early, MD

Site Compliance

Hospital 1: Kaiser

OBG401: Reproductive Endocrinology & Infertility Category: AMB, Elective

Course Information

Course Director	Silvina Bocca, MD, PhD, HCLD	**Period Offered**	All Blocks
Location	The Jones Institute for Reproductive Medicine	**Duration**	4 weeks
Main Contact	Irene Foy foya@evms.edu 757-446-7119	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

The experience teaches introductory concepts of homeostasis, hormone synthesis, structure/function and hormonal signal transduction; the key hormones and growth factors and their roles in reproduction; basic female and male reproductive anatomy; physiology of the ovulatory cycle, menstruation and menopause; pharmacological control of follicular development of fertility treatment and contraception; disorders of fertility and pathology of the reproduction system; ovarian stimulation protocols; and the role of GnRH agonists and antagonists in ART. There is opportunity to be involved with surgery depending on experience and desire of the student.

Textbook: *Clinical Gynecologic Endocrinology & Infertility* by Speroff, et.al, 9th edition, 2019, Lippincot, Williams and Wilkins.

Course Objectives

1. To obtain history and physical exam from patients in the clinic under the supervision of the attending physician and learn work-up and patient management. These types of patients include basic infertility patients, premature ovarian failure, IVF patients, patients with menstrual disturbances, (amenorrhea, DUB, PCOS, PMS), recurrent miscarriages, mullerian anomalies, pubertal disorders, menopausal problems, PMS, patients with contraceptive needs, and cancer patients seeking fertility preservation.
2. To be proficient with the following procedures in the clinic – IUI, transvaginal ultrasound (2D and 3D), hydrosonogram, hysterosalpingogram, endometrial biopsy, and ovulation induction with clomid, femara and gonadotropins.
3. To understand the basic steps involved in the performance of the following procedures: TESA and TESE, IUI, cryopreservation, semen preparation, semen analysis,embryo biopsy for PGT-A, PGT-M and PGT-ST.
4. To assist in the OR with the attending and fellow on laparoscopies, daVinci assisted laparoscopies, endometriosis surgery, laparotomies, myomectomies, hysteroscopies with resection of polyps, fibroids, vaginal and uterine septi, IVF retrieval and transfers, etc.
5. To attend noon conferences, Journal Club (last Monday of the month, 5-7 pm) and Ob/Gyn Dept. Grand Rounds (Thursday, 8 am).
6. To know how to evaluate the endocrine status by clinical skills, BBT, cervical mucus and vaginal smere.
7. To understand the principles of selectively ordering a laboratory test for the differential diagnosis of reproductive endocrine problems.
8. To understand quality improvement principles by participating in daily outcome reviews.

Course Specifics

Report First Day	The Jones Institute Building, 601 Colley Ave, Norfolk, VA 23507; First Floor, Nurses Station; ask for the "first year fellow" for orientation.	
Student Efforts	.5% of time inpatient setting 0% of time in trauma/ICU 99.5% of time in outpatient setting	40 hours/week of direct patient care 3 hours/week of didactics 0 hours/week of asynchronous activities
Evaluation	100% clinical observation	
Additional Physicians Participating in Teaching	Laurel Stadtmauer, MD, PhD	

Site Compliance

Hospital 1: Non-Hospital Experience unless participating in surgery at Sentara Norfolk General Hospital or at Jones Institute OR (2nd floor)

OBG402: High Risk Obstetrics - Advanced Clerkship Category: AI, Elective

Course Information

Course Director	Gloria Too, MD	**Period Offered**	All Blocks
Location	EVMS Hofheimer Hall Sentara, Norfolk General Hospital	**Duration**	4 weeks
		# of Students	1 per block
Main Contact	Tara Chauhan chauhatp@evms.edu 757-446-7902	**Visiting Students**	Yes
		Night Call	Yes
		Pre-Requisites/Restrictions	None

Course Description

The student will participate in the care of the high risk obstetrical patients, working directly with the faculty members of the Division of Maternal-Fetal Medicine and the residents on the Academic Obstetrics Service at Sentara Norfolk General Hospital. The rotation emphasizes inpatient care, but students will also participate in outpatient high-risk obstetric clinic for one half day per week. At the completion of the elective, the student should have an understanding of the approach to the clinical approach to common high-risk obstetric complications. Students will be expected to take 2 overnight call shifts during the four week rotation at SNGH Labor and Delivery.

Labor and Delivery Acting Intern Schedule*

Monday:	5:30am – 5:30pm	Antepartum/Labor and Delivery
Tuesday:	5:30am – 5:30pm	Antepartum/Labor and Delivery
Wednesday:	5:30am – 5:30pm	Antepartum/Labor and Delivery
Thursday:	5:30am – 8:00am	Antepartum/Labor and Delivery
	8:00am – 12:00pm	Didactics
	12:00pm – 5:30pm	Antepartum/Labor and Delivery
Friday:	5:30am – 5:30pm	Antepartum/Labor and Delivery

**Schedule may be altered by overnight call shifts*

In the last week of the rotation, the student will be expected to sit down with the course director for an oral exam.

Course Objectives

1. To become familiar with the clinical presentation, evaluation, diagnosis, and management of common complications of pregnancy, such as (but not limited to):
    a. pre-term labor
    b. premature rupture of membranes
    c. hypertensive disease
    d. diabetes in pregnancy
2. To increase skills in clinical evaluation and management.
3. To increase technical skills in Obstetrics and Gynecology, such as pelvic exam and obstetric ultrasound.

Course Specifics

Report First Day	EVMS Maternal-Fetal Medicine Office at Hofheimer Hall, third floor 8:00 am	
Student Efforts	90% of time inpatient setting 0% of time in trauma/ICU 10% of time in outpatient setting	55 hours/week of direct patient care 4 hours/week of didactics 0 hours/week of asynchronous activities
Evaluation	100% clinical observation	
Additional Physicians Participating in Teaching	Alfred Abuhamad, MD; Camille Kanaan, MD; Lea Porche, MD; Malgorzata Mlynarczyk, MD; Steven Warsof, MD; Margarita de Veciana, MD; Ray Abinadar, MD; Juliana Martins, MD; Elizabeth Seagraves, DO	

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

OBG411: Urogynecology

Category: AMB, Elective

Course Information

Course Director	Kindra Larson, MD Peter Takacs, MD	**Period Offered**	Blocks 3, 4, 6-9
		Duration	4 weeks
Location	EVMS Sentara Princess Anne Office and OR	**# of Students**	1 per block
Main Contact	Tara Chauhan chauhatp@evms.edu 757-446-7902	**Visiting Students**	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Experience in urogynecology in an office and hospital setting. Hands on experience in the operating room in a supervised setting. Management of outpatient urodynamic testing and other evaluations pertinent to the patient with urinary incontinence.

Course Objectives

1. Basic knowledge in the diagnosis and treatment of female incontinence and related issues.
2. Basic knowledge in operative techniques including cystoscopy.
3. Improve ability to perform pelvic exams in an office setting.
4. Basic knowledge of urodynamic testing.

Course Specifics

Report First Day Princess Anne Office (8:00 am)

Student Efforts

30% of time inpatient setting
0% of time in trauma/ICU
70% of time in outpatient setting

30 hours/week of direct patient care
4 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 35% oral exam/case presentation; 65% clinical observation

Additional Physicians Participating in Teaching Peter Takacs, MD

Site Compliance

Hospital 1: Sentara, Princess Anne Hospital

OBG407: Benign Gynecology

Category: AMB, Elective

Course Information

Course Director	Andrew Moore, MD	**Period Offered**	All Blocks
Location	EVMS Hofheimer Hall Sentara, Norfolk General Hospital Sentara, Leigh Hospital Sentara, Princess Anne Hospital	**Duration**	4 weeks
		# of Students	1 per block
		Visiting Students	Yes
Main Contact	Tara Chauhan chauhatp@evms.edu 757-446-7902	**Night Call**	No
		Pre-Requisites/Restrictions	None

Course Description

The purpose of this elective is to provide the students with further experience in inpatient and outpatient benign gynecology. The student will function as a "sub-intern" in the diagnosis, evaluation and treatment of women with various gynecologic problems. It will include both inpatient and outpatient experiences, with participation in clinics, gynecologic surgeries, and on-going inpatient care.

Course Objectives

1. To increase knowledge and experience in the differential diagnosis and management of benign gynecologic diseases.
2. To gain practical experience with pelvic examination and other GYN office procedures.
3. To gain experience with other modalities of outpatient and inpatient evaluation of common gynecologic problems.
4. To learn the indications for gynecologic surgical procedures.

Course Specifics

Report First Day Meeting time and place will be determined by the Chief Resident

Student Efforts

30% of time inpatient setting
0% of time in trauma/ICU
70% of time in outpatient setting

60 hours/week of direct patient care
0 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 75% clinical observation, 25% written and oral presentation

Additional Physicians Participating in Teaching Thomas Kimble, MD; Andrew Moore, MD; Renee Morales, MD, FACOG

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital
Hospital 2: Sentara, Princess Anne Hospital
Hospital 3: Sentara, Leigh Hospital

OBG419: Advanced Clerkship in Benign Gynecology — Category: AI, Elective

Course Information

Course Director	Joseph Hudgens, MD	**Period Offered**	Blocks 1-4, 7-9
Location	Sentara, Norfolk General Hospital Sentara Princess Anne Hospital	**Duration**	4 weeks
		# of Students	1 per block
Main Contact	Tara Chauhan chauhatp@evms.edu 757-446-7902	**Visiting Students**	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

The Acting Internship (AI) experience is designed to encourage senior medical students to assume patient care responsibilities similar to those of an intern (PGY-1 resident). This course is designed for students pursuing a surgical career who are interested in increasing their knowledge of pelvic anatomy and fundamental surgical skills with an emphasis in minimally invasive surgery. The student will complete a structured curriculum that includes pelvic anatomy, surgical instrumentation, surgical energy, & fundamental laparoscopic skills. The student will participate in clinical activities including observation in the operating room one and one half days per week and will be involved in direct patient care two half days in outpatient gynecology clinics. The remainder of the time will be in self-directed study and surgical simulation skills. The student will be assigned a mentor from the Gynecology Division to supervise the completion of the course.

Course Objectives

By the completion of this rotation the medical student should be competent in the following:

1. Describe the key pelvic anatomic land marks and anatomic relationships of the pelvis
2. Assess these land marks in both pelvic exam and surgical settings as they relate to the pathophysiology, evaluation and treatment of gynecologic disease
3. Identify the surgical instruments and equipment commonly used in gynecologic procedures
4. Describe the use of surgical energy in relation to gynecologic surgery
5. Describe and employ basic dissection techniques use in gynecologic and minimally invasive surgery
6. Describe the critical steps necessary in following the patient through the surgical process including pre-operative assessment in the clinical setting, pre-operative evaluation and planning the day of surgery, intraoperative planning, and post-surgical care
7. Develop an evaluation and treatment algorithm for assessing patients with complex gynecologic pathology to include patient history, physical exam, employing and interpreting appropriate diagnostic studies, and developing an appropriate management plan

Course Specifics

Report First Day EVMS Hofheimer Hall

Student Efforts
25% of time inpatient setting
0% of time in trauma/ICU
25% of time in outpatient setting

20 hours/week of direct patient care
6 hours/week of didactics
14 hours/week of asynchronous activities

Evaluation 15% final multiple choice exam; 10% weekly exams; 10% final oral exam; 25% clinical observation; 40% required lab sessions

Additional Physicians Participating in Teaching Traci Ito, MD; Andy Moore, MD

Site Compliance

Hospital 1: Hospital 1: Sentara, Norfolk General Hospital
Hospital 2: Sentara, Princess Anne Hospital

OBG418: Advanced Clerkship in Benign Gynecology and Urogynecology

Category: AI, Elective

Course Information

Course Director	Kindra Larson, MD Beth Levin, MD	**Period Offered**	Blocks 1, 2, 5
		Duration	4 weeks
Location	Sentara, Norfolk General Hospital Sentara Princess Anne Hospital	**# of Students**	1 per block
		Visiting Students	Yes
Main Contact	Tara Chauhan chauhatp@evms.edu 757-446-7902	**Night Call**	No
		Pre-Requisites/Restrictions	None

Course Description

The Acting Internship (AI) experience is designed to encourage senior medical students to assume patient care responsibilities similar to those of an intern (PGY-1 resident). This course is designed for students pursuing a surgical career who are interested in increasing their knowledge of pelvic anatomy and fundamental surgical skills with an emphasis in minimally invasive surgery. The student will complete a structured curriculum that includes pelvic anatomy, surgical instrumentation, surgical energy, & fundamental laparoscopic skills. The student will participate in clinical activities including observation in the operating room one and one half days per week and will be involved in direct patient care two half days in outpatient gynecology clinics. The remainder of the time will be in self-directed study and surgical simulation skills. The student will be assigned a mentor from the Gynecology Division to supervise the completion of the course.

Course Objectives

By the completion of this rotation the medical student should be competent in the following:

1. Manage common outpatient obstetric and gynecologic problems
2. Perform routine gynecologic examinations, Pap smears, and gynecologic biopsies
3. Identify the surgical instruments and equipment commonly used in gynecologic procedures. Basic knowledge of operative techniques, including: cystoscopy, hysteroscopy, and laparoscopy
4. Describe the critical steps necessary in following the patient through the surgical process including pre-operative assessment in the clinical setting, pre-operative evaluation and planning the day of surgery, intraoperative planning, and post-surgical care
5. Develop an evaluation and treatment algorithm for assessing patients with complex gynecologic pathology to include patient history, physical exam, employing and interpreting appropriate diagnostic studies, and developing an appropriate management plan
6. Basic knowledge of urodynamic testing

Course Specifics

Report First Day EVMS Hofheimer Hall

Student Efforts

60% of time inpatient setting
0% of time in trauma/ICU
40% of time in outpatient setting

30 hours/week of direct patient care
4 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 80% clinical observation; 20% oral exam/case presentation

Additional Physicians Participating in Teaching Peter Takacs, MD; Andy Moore, MD; Stephen Davis, MD; Richard Willard, MD; Renee Morales, MD, FACOG

Site Compliance

Hospital 1: Hospital 1: Sentara, Norfolk General Hospital
Hospital 2: Sentara, Princess Anne Hospital

OBG410: Reproductive Genetics

Category: Elective

Course Information

Course Director	Steve Warsof, MD	**Period Offered**	All Blocks
Location	EVMS Hofheimer Hall Sentara, Princess Anne Hospital	**Duration**	4 weeks
		# of Students	1 per block
Main Contact	Steve Warsof, MD warsofsl@evms.edu 757-446-7902	**Visiting Students**	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Although exposed to the general "concepts" of genetic risk assessment in the third year clerkship, the majority of students have little experience with medical genetics as practiced. The goals of the elective will include observation of genetic counseling, risk assessment calculation, counseling regarding prenatal diagnosis options, prenatal screening to include noninvasive prenatal testing of fetal aneuploidy (NIPT), population based carrier screening, ultrasound assessment of fetal anomalies (and their implications), teratogen exposure in pregnancy and recurrence risk.

Course Objectives

1. To increase knowledge and experience in the differential diagnosis and management of reproductive genetic disease.
2. To gain practical experience with obstetric ultrasound.
3. To learn the indications for prenatal diagnosis.

Course Specifics

Report First Day Maternal-Fetal Medicine, Hofheimer Hall, 8:30 a.m., 3rd Floor. Ask for genetics counselor.

Student Efforts

0% of time inpatient setting	30 hours/week of direct patient care
0% of time in trauma/ICU	4 hours/week of didactics
100% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation 65% clinical observation; 35% case presentation

Additional Health Professionals Participating in Teaching Lauren Grimes, MS; Katie Schill, MS; Kristen Cornell, MS

Site Compliance

Hospital 1: Sentara, Princess Anne Hospital

OBG415: Advanced Education/Research Elective

Category: Elective

Course Information

Course Director	Gloria Too, MD	**Period Offered**	All Blocks
Location	EVMS Hofheimer Hall	**Duration**	4 weeks
Main Contact	Tara Chauhan chauhatp@evms.edu 757-446-7902	**# of Students**	2 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

The student will participate in educational and/or clinical research under the direction of Dr. Too and her appointed clinical research supervisors, and will be required to submit clear research objectives at least 8 weeks prior to the start of the rotation.

The student may participate in the planning, coordinating, and successful execution of various educational activities of the third year OB-GYN clerkship. Included duties with respect to the third-year clerkship include, but are not limited to: assisting with orientation, suture workshops, simulation training, updating and proctoring the clerkship mid-term examination, development and testing of objective structured clinical exams (OSCE's), standardized patients (SP's) and other teaching responsibilities as directed by Dr. Too.

Course Objectives

1. To increase and reinforce the basic core knowledge of Obstetrics and Gynecology through teaching and educational research.
2. To develop academic medical skills by actively participating in the formal educational process of junior medical students.
3. To become familiar with the rigors of clerkship scheduling, proctoring, and question and examination development.
4. To gain competence in educational and/or clinical research by exposure to ongoing research projects in the Department of Obstetrics and Gynecology.
5. To increase clinical knowledge and competence in Obstetrics and Gynecology through continued clinical interaction with faculty and patients.

Course Specifics

Report First Day Maternal-Fetal Medicine, Hofheimer Hall, 8:30 a.m., 3rd Floor

Student Efforts

0% of time inpatient setting	0 hours/week of direct patient care
0% of time in trauma/ICU	0 hours/week of didactics
0% of time in outpatient setting	40 hours/week of asynchronous activities

Evaluation 100% mentor evaluation

Additional Physicians Participating in Teaching Andrew Moore MD; Renee Morales, MD; self-selected research faculty mentor

Site Compliance

Hospital 1: Non-hospital experience

Department of Ophthalmology

Established in 1976 by its founding chair, Dr. William Humphrey, and a group of dedicated community ophthalmologists, the EVMS Ophthalmology Residency Program started as a community based training program to meet the needs of the rapidly growing population in Hampton Roads.

Since that time, the Ophthalmology Residency Program has experienced tremendous growth in its academic, clinical and research programs. The program offers an outstanding, well-balanced exposure to all aspects within the field of Ophthalmology including: Cornea and external disease, Cataract, Glaucoma, Pediatrics, Uveitis, Retina, Neuro-Ophthalmology, Oculoplastics and Ocular Pathology. With over 30 community faculty members and 3 research faculty members, the wealth of expertise available to the program is outstanding. The majority of the clinical experience occurs at Sentara Norfolk General Hospital and the Hampton VA Medical Center. The residents also rotate at several faculty members private offices during their subspecialty exposure. The curriculum is further augmented by rotations at CHKD. The personalized attention received by the residents, along with an exceptional breadth of eye pathology exposure, with one resident to 247K population, distinguishes this unique program.

The program offers extensive exposure to ocular trauma and emergencies through its association with the Level 1 trauma center at Sentara Norfolk General Hospital. The Lions Center for Sight, located within Norfolk General Hospital, is the primary site of the resident eye clinic. The on campus Thomas R. Lee Center for Ocular Research offers exceptional opportunities for resident research. Residents regularly present papers and research projects at local and national meetings.

The three-year residency program is fully accredited by the ACGME. Residents enter the program after completing a year of internal medicine, surgery or a rotating internship. The program receives over 300 applications annually, through the SF Match program, for its two first year ophthalmology resident positions. About half the residents graduating from the program pursue fellowship training.

To learn more about the Department visit: https://www.evms.edu/education/schools_institutes_centers_departments/ophthalmology/

Specialty Advising: Ophthalmology

Are you competitive?

Competitiveness: Highly competitive
Mean Step 1 score: 245
Total number of programs: 120
Interview timing: October-December
Away rotations: Highly Recommended
Research: Usually high, but varies by program

Ophthalmology Match Report 2020

Total # of registrations	737	Total # of rank lists	635
Total # of CAS participants	703	Total # of applicants ranked	617

Avg. USMLE Step 1:

Matched	245
Unmatched	233
Avg. applications per applicant	77

Matched applicants:

US Seniors	444
US Grads	22
IMGs	29
Total Matched:	495
Unmatched applicants:	140

Pct. Matching:

Overall	78%
US Seniors	90%
US Grads	4%
IMGs	6%

Positions

Offered	496
Filled	495
Left	1

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Shannon McCole, MD** — Ophthalmology Chair/PD
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

Ophthalmology Q&A

AWAY ROTATIONS: Are away rotations required? It is highly recommended! **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day – you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. This is particularly helpful for your competitive "reach" programs.

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	5:0 (5 students)	Data Pending	1-3 (range)	Blocks 3-5

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Two letters from ophthalmologists and one from a faculty member on a core clerkship (Medicine, Surgery, Pediatrics). For ophthalmology, you might choose a research advisor, mentor, or attending you worked closely with during your clerkship/away rotation.

Ophthalmology is a small field, so letters from well-known individuals can help your application, but only if they know you well. In general, make sure you choose someone who knows you well and can vouch for your character, work ethic, and enthusiasm for the field. If using a LOR from a clerkship, ask the letter writer during or immediately after your clerkship, while your work is still fresh in their mind. NOTE: These same 3 letters of recommendation will be sent to ALL the ophthalmology programs you apply to.

APPLYING FOR RESIDENCY: The Ophthalmology Match is a unique process for medical students. Unlike your classmates, you will need to apply through two separate application services, the San Francisco Match (for ophthalmology) and ERAS (for your preliminary/internship year). You will also find out if you matched in mid-January instead of mid-March.

M1-M2 checklist:

- ☑ AAMC Careers in Medicine Assessment
- ☑ LGM / Shadow clinicians
- ☑ Attend specialty talk panels, workshops, and other advising sessions.
- ☑ Join student groups
- ☑ Begin research projects
- ☑ M1/M2 summer experience

M3-M4 checklist:

- ☑ Schedule a meeting with the Ophthalmology chair for a letter of recommendation (see Specialty Advisors List for specific contact info).
- ☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.
- ☑ Participate in **mock interviews**.
- ☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/ alumni.
- ☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)
- ☑ Start scheduling **interviews** and make travel arrangements.
- ☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

OPHTHALMOLOGY ADVISORS:
EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

COORDINATOR:
Ally Hemphil
HemphiAM@EVMS.EDU

OPHTHAL ALUMNI:
alumni@evms.edu

RESOURCES:
Residency Match Basics for Ophthalmology
Ophthalmology Residency match Summary Report 2019
San Francisco Match

OPH400: Clinical Ophthalmology

Category: AMB, Elective

Course Information

Course Director	Shannon McCole, MD
Location	Sentara, Norfolk General Hospital Children's Hospital of The Kings Daughters
Main Contact	Ally Hemphill hemphiam@evms.edu 757-388-2473
Period Offered	Blocks 2-4, 7-9
Duration	4 weeks
# of Students	1 per block
Visiting Students	Yes
Night Call	No
Pre-Requisites/Restrictions	Letter of interest and CV must be submitted. Blocks 2-4 reserved for ophthalmology interested medical students.

Course Description

An introduction to comprehensive and subspecialty ophthalmic practice. Emphasis will be placed on general ophthalmology, acute ocular pathology and trauma, retinal pathology, glaucoma, and pediatrics. The student will work closely with ophthalmology residents as well as faculty. Curriculum can be tailored to the student's particular interests. The rotation will particularly benefit those interested in ophthalmology as a career, as well as other subspecialties including emergency medicine, internal medicine and pediatrics.

Required Educational Materials: Web-based instruction, University of Michigan "*The Eyes Have It*"

Suggested Educational Materials: *Basic Ophthalmology*, Cynthia A. Bradford, Executive Editor, 8th edition, 2004, published by the American Academy of Ophthalmology. ISBN 978-1-56055-361-8. | *The Physician's Guide to Eye Care*, Jonathan D. Trobe, 3rd edition. 2006, published by the American Academy of Ophthalmology. | *The Eye Exam and Basic Ophthalmic Instruments*.

Course Objectives

1. To provide the student with a basic understanding of the field of Ophthalmology.
2. To teach the student to perform a basic vision and external ophthalmic exam.
3. The student will be given an opportunity to earn and practice more advanced examination techniques. Including external slit lamp exam, slit lamp fundoscopy and indirect ophthalmoscopy.
4. To introduce the student to ophthalmic subspecialties such as glaucoma, retina, oculoplastics, pediatrics and neuro-ophthalmology.
5. To gain an understanding of the evaluation, diagnosis and management of common medical and surgical ophthalmic conditions.

Course Specifics

Report First Day Lions Eye Clinic, 8:30 am

Student Efforts

15% of time inpatient setting
0% of time in trauma/ICU
85% of time in outpatient setting

36 hours/week of direct patient care
4 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation Clinical observation, written examination. Course is administered thru blackboard and medical students are asked to upload all *The Eyes Have It* quizzes to blackboard courses.

Additional Physicians Participating in Teaching Avi Meier MD; Maria Lourdes Gonzalez, MD, PhD; Eric Adams, MD; Dietrich Fellner, MD; Giovanni DiSandro MD; Albert Cheung, MD; Mark Fernandez, MD; Mark Pavilack, MD; Elizabeth Yeu, MD; Stephen Scoper, MD; Dawnielle Kerner, MD; Peter Mitrev, MD; Samantha Dewundara, MD; Constance Okeke, MD, MSCE; Arielle Spitze, MD; Thomas Joly, MD, PhD; Alan Wagner, MD, FACS, FICS; Adam Lipman, MD; Kapil Kapoor, MD, FACS; Barry Mandell, MD; David Salib, MD; Rohit Adyanthaya, MD; Kori Elkins, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital
Hospital 2: Children's Hospital of The Kings Daughters

OPH402: Clinical Ophthalmology

Category: AMB, Elective

Course Information

Course Director	G. Peyton Neatrour, MD	**Period Offered**	All Blocks
Location	Beach Eye Care 1201 First Colonial Road Virginia Beach	**Duration**	2 weeks
		# of Students	1 per two week block
Main Contact	Trish Stauffer pstauffer@beacheyecare.com 757-425-5550	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

This elective will include exposure to the office practice of ophthalmology and ophthalmic surgery with emphasis on managing and diagnosing common eye diseases.

Course Objectives

1. To observe and learn in an office setting the practice of ophthalmology.
2. To become familiar with the diagnosis and management of infections and minor eye trauma.
3. To learn the basics of taking an ocular history and performing an ocular examination. This will include visual acuity, tonometry, external exam, muscle testing, ophthalmoscopy and slit lamp exam.
4. To learn appropriate referral of patients to an ophthalmologist.
5. To correlate eye findings with systemic disease.
6. To become familiar with ophthalmic instrumentation.
7. Audiovisuals will be used to supplement the clinical experience.

Course Specifics

Report First Day Beach Eye Care

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
100% of time in outpatient setting

32 hours/week of direct patient care
0 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Vivek Jain, MD; William Waschler, MD; Ed Levine, MD

Site Compliance

Hospital 1: Non-hospital experience

OPH403: Subspecialty Ophthalmology: Cornea, External Disease, Uveitis

Category: AMB, Elective

Course Information

Course Director	John Sheppard, MD	**Period Offered**	All Blocks
Location	Virginia Eye Consultants 241 Corporate Boulevard, Norfolk, VA	**Duration**	2 weeks
		# of Students	1 per block
Main Contact	Karen Fowler kfowler@cvphealth.com	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	Students interested in a career in Ophthalmology or related field

Course Description

40 hour per week clinical rotation with close observation in clinic and OR

Course Objectives

1. Utilize and familiarize the student with basic instrumentation:
    a. slit lamp
    b. direct ophthalmoscope
    c. indirect ophthalmoscope
    d. visual field testing
    e. rudimentary refraction
2. Understand the scope of ophthalmic practice.
3. Appreciate the unique aspects of referral-only practice.
4. Diagnose and treat common ophthalmic disorders seen in primary care.

Course Specifics

Report First Day Email Karen Fowler to confirm at least two weeks prior to the start of the elective

Student Efforts
5% of time inpatient setting
5% of time in trauma/ICU
90% of time in outpatient setting

34 hours/week of direct patient care
4 hours/week of didactics
2 hours/week of asynchronous activities

Evaluation 75% clinical observation, 25% oral exam

Additional Physicians Participating in Teaching Student may follow other physicians in various sub-specialties during clinic rotation

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

Department of Otolaryngology

Head and Neck Surgery

Our vision is to provide superior quality, personal, and compassionate care for our patients. As part of an academic medical center, we also endeavor to explore and advance the science of disorders of the ear, head and neck and to provide superior education for medical students and residents. We are dedicated to maintaining personal lifelong scholarship and to actively participate in the education of our patients and their future doctors. We have offices located in Norfolk, Virginia Beach, Chesapeake and Newport News to serve our patients all over Hampton Roads.

Our physicians are fellowship-trained and skilled experts in their chosen subspecialties. They are dedicated to providing superior and compassionate care. Additionally, they actively participate in advocacy, education and research.

To learn more about the Department visit: https://www.evms.edu/otolaryngology_ent/#education

Specialty Advising: Otolaryngology

Are you competitive?

Competitiveness: Highly competitive
Mean Step 1/2 score: 245/251 (EVMS ENT graduates 2014-18)
Mean Step 1/2 score: 248/256 (AAMC Charting Outcome Data 2020)
Total number of programs: 129
Interview timing: November-January
Away rotations: Recommended
Research: Recommended

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=299)	Unmatched (n=96)
Mean number of contiguous ranks	13.1	7.1
Mean USMLE Step 1 score	**248**	**243**
Mean USMLE Step 2 score	**256**	**249**
Mean number of research experiences	6.1	5.5
Mean number of abstracts, presentations, publications	13.7	9.5
Mean number of volunteer experiences	8.6	10.0
Percentage who are AOA members	38.1	21.9
Percentage who have another graduate degree	16.7	17.0

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access
- **ENT specialty group at EVMS** — research spreadsheet.

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

OTOLARYNGOLOGY Q&A

AWAY ROTATIONS: Are away rotations required? They are highly recommended. **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day – you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. We recommend doing one ENT rotation at EVMS, one at a school with name recognition, and one you would want to get a guaranteed interview.

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	2:0 (2 students)	Data Pending	2 (range)	Blocks 3-4

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Two to three from ENT faculty, including the director or chair, and if you have a mentor from a different department who knows you well, that's a good letter to include as well. LoRs reflect not only your accomplishments but also your ability to form meaningful relationships with faculty.

M1-M2 checklist:

- ☑ AAMC Careers in Medicine Assessment
- ☑ LGM / Shadow clinicians
- ☑ Attend specialty talk panels, workshops, and other advising sessions
- ☑ Join student groups
- ☑ Begin research projects
- ☑ M1/M2 summer experience

M3-M4 checklist:

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/ alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

OTOLARYNGOLOGY ADVISORS: EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

COORDINATOR:
Kelly Sylvester
SylvesKS@EVMS.EDU

ENT ALUMNI:
alumni@evms.edu

RESOURCES:
http://www.headmirror.com — Resource maintained by Otolaryngology physicians and medical students.

OTO403: Otolaryngology for the Primary Care Physician

Category: AMB, Elective

Course Information

Course Director	Jonathan Mark, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital Sentara, Princess Anne Hospital Children's Hosp. of The Kings Daughters	**Duration**	4 weeks
		# of Students	2 per block
Main Contact	Kelly Sylvester sylvesks@evms.edu 757-388-6229	**Visiting Students**	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

This elective is designed for the medical student interested in the primary care specialties (family practice, internal medicine, pediatrics) and is oriented toward outpatient services. The student will receive a wide exposure to medical and surgical aspects of diseases of the head and neck in adults and children. Major patient contact will be through the department's clinical offices, hospital clinics, and hospital rounds. There will be selected operating room experience to demonstrate common procedures.

Course Objectives

1. Learn the basics of the ear, nose and throat examination.
2. Diagnose and treat the spectrum of diseases related to chronic serous otitis media, acute otitis media and chronic otitis media.
3. Diagnose and treat the spectrum of diseases in the oral cavity and pharynx (e.g., tonsillitis, adenoiditis and oral/dental diseases).
4. Evaluate and treat nasal/sinus disorders.
5. Learn the basic work-up and follow-up of the head and neck cancer patient and thyroid/parathyroid patient.
6. Diagnose and treat voice and swallowing problems.
7. To understand the basic surgical skills and perioperative problems involved in performing myringotomy, tonsillectomy, sinus and laryngeal endoscopic surgery.

Course Specifics

Report First Day
Students will be provided a schedule the week before beginning the rotation. Students should email Kelly Sylvester (sylvesks@evms.edu) if they have not received an email from her with their rotation schedule. Report to the designated clinic on your first day.

Student Efforts

10% of time inpatient setting	40 hours/week of direct patient care
0% of time in trauma/ICU	3 hours/week of didactics
90% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation
100% clinical observation

Additional Physicians Participating in Teaching
Barry Strasnick, MD; Matthew Bak, MD; Cristina Baldassari, MD; David Darrow, MD; Craig Derkay, MD; Eric Dobratz, MD; Will Dougherty, MD; Thomas Gallagher, DO; Joseph Han, MD; Daniel Karakla, MD; Kent Lam, MD; Stephanie Moody Antonio, MD; Ben Rubinstein, MD; Ashley Schroeder, MD; John Sinacori, MD; Peter Volsky, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital
Hospital 2: Children's Hospital of The Kings Daughters
Hospital 3: Sentara, Princess Anne Hospital

OTO404: Otolaryngology for the Future Surgeon

Category: AI, Elective

Course Information

Course Director	Jonathan Mark, MD
Location	Sentara, Norfolk General Hospital Sentara, Princess Anne Hospital Children's Hosp. of The Kings Daughters
Main Contact	Kelly Sylvester sylvesks@evms.edu 757-388-6229
Period Offered	All Blocks
Duration	4 weeks
# of Students	2 per block
Visiting Students	Yes
Night Call	Optional
Pre-Requisites/Restrictions	None

Course Description

This elective offers an orientation to otolaryngology for the future surgeon. An emphasis will be placed on medical and surgical aspects of diseases of the head and neck with the development of specific surgical skills related to these diseases. The course will be divided between operating room experiences and office otolaryngology. The elective will be fashioned to meet the needs of the student, and be tailored toward medical students interested in the Otolaryngology-Head & Neck Surgery residency.

Course Objectives

1. Learn the basics of the ear, nose and throat examination.
2. Diagnose and treat the spectrum of diseases related to chronic serous otitis media, acute otitis media and chronic otitis media.
3. Diagnose and treat the spectrum of diseases related to tonsillitis, adenoiditis and sinusitis.
4. Evaluate and treat nasal/sinus disorders.
5. Learn the basic work-up and follow-up of the head and neck cancer patient and thyroid/parathyroid patient.
6. Diagnose and treat voice and swallowing problems.
7. Develop surgical skills, such as performing myringotomy, tympanostomy tube placement, sinus irrigation, laryngoscopy, wound closure and tracheotomy.
8. To understand practical head and neck anatomy as it relates to the patient with surgical disease.
9. To understand the pre-op and post-op care of patients with head and neck cancer.

Course Specifics

Report First Day

Students will receive a welcome email from Kelly Sylvester a week before the course is to begin. Please contact Kelly Sylvester (sylvesks@evms.edu) if you do not receive this email. The email will give a general schedule dictating which ENT sub-specialty service they will be on each week. The Chief Resident of each sub-specialty will give a more detailed schedule. Once students receive their general schedule, they should email the Chief Resident of their first sub-specialty service for instructions of where to report on day one.

Student Efforts

80% of time inpatient setting
0% of time in trauma/ICU
20% of time in outpatient setting

40 hours/week of direct patient care
3 hours/week of didactics
4 hours/week of asynchronous activities

Evaluation

100% clinical observation

Additional Physicians Participating in Teaching

Barry Strasnick, MD; Matthew Bak, MD; Cristina Baldassari, MD; David Darrow, MD; Craig Derkay, MD; Eric Dobratz, MD; Will Dougherty, MD; Thomas Gallagher, DO; Joseph Han, MD; Daniel Karakla, MD; Kent Lam, MD; Stephanie Moody Antonio, MD; Ben Rubinstein, MD; Ashley Schroeder, MD; John Sinacori, MD; Peter Volsky, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital
Hospital 2: Children's Hospital of The Kings Daughters
Hospital 3: Sentara, Princess Anne Hospital

OTO402: Otolaryngology

Category: Elective

Course Information

Course Director	Virginia Teti, MD	**Period Offered**	All Blocks
Location	Naval Medical Center Portsmouth	**Duration**	4 weeks
Main Contact	Rachel Darling usn.hampton-roads.navhospporsva.list.NMCP-MedStudentCoordinator@mail.mil 757-953-0672 or 757-953-3677	**# of Students**	2 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Priority given to HPSP students July-October. To request this elective CLICK HERE. Click on "Request for Clerkship/Interview" in the bottom left corner

Course Description

This elective offers a broad and flexible orientation suitable for medical students interested in surgery or the primary care specialties. The student will receive a wide exposure to medical and surgical aspects and diseases of the head and neck in adults and children. All students obtain experience with the diagnosis and initial treatment of head and neck problems commonly encountered by primary care providers. Because the ENT department serves a large and diversified patient population, there is also ample opportunity for more in-depth experience with the complete spectrum of head and neck disorders. The proportion of time each medical student spends in the clinic or operating room will be tailored to emphasize the student's interests.

Course Objectives

1. Outpatient evaluation of patients in a busy clinic: The student will observe and participate in the care of both routine and unique patients under the guidance of a staff or senior resident otolaryngologist.
2. Inpatient management of postoperative and medically treated patients: The student will round with one of two teams and may cross teams to round on particularly interesting patients, or those seen in the clinic or operating room.
3. Operative experience: The student will attend our academic conferences which include Morbidity and Mortality (monthly), Preoperative Conference (weekly), Didactic Lecture (weekly), Tumor Board (bi-monthly), and any of our in-house courses.
4. Audiology exposure: The student may spend one half day in the audiology department to observe routine audiograms, play audiometry, and ENG's or ABR's if ongoing. Related readings on the indications and interpretation are provided to round out the experience.
5. Allergy therapy exposure: The student will spend one half day in the allergy clinic observing the interpretation of allergy evaluations, the preparation of therapeutic antigens and the administration of immunotherapy.
6. Surgical experience: Each student will receive experience and guidance in soft tissue surgical techniques.

Objectives:

1. Learn the basics of the ear, nose and throat examination.
2. Learn the differential diagnosis and evaluation of rhinitis and nasal obstruction.
3. Learn the diagnosis & treatment of pediatric ear disease & the indications for myringotomy with tympanostomy tubes.
4. Learn the indications for tonsillectomy and adenoidectomy.
5. Learn to diagnose and treat a peritonsillar abscess and other masses of the neck.
6. Learn the initial management of epistaxis and nasal fractures.
7. Learn the differential diagnosis and initial evaluation of the patient with balance disorder.
8. Learn the risk factors for and indicated evaluation of head and neck cancer.
9. Learn the techniques of proper traumatic and surgical wound closure.
10. Learn the systematic management of pediatric and adult upper airway obstruction.

Course Specifics

Report First Day Graduate Medical Education Office, Bldg. #3, 3rd floor at 8:00 am

Student Efforts

10% of time inpatient setting
40% of time in trauma/ICU
40% of time in outpatient setting

10 hours/week of direct patient care
8 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Greg Capra, MD; Marco Ayala, MD; Craig Folsom, MD; Erin Hamersley, MD; Wesley Abadie, MD; Micaela Dagucon, MD; Gabriel Santiago, MD

Site Compliance

Hospital 1: Naval Medical Center Portsmouth

Department of Pathology & Anatomy

Welcome to EVMS Pathology and Anatomy. The department strives to promulgate the school's vision of "Community Service. World Impact." through innovative educational programs for our medical and graduate students, cutting-edge research in neuroscience and community outreach.

The department is proud to champion ultrasound education in the pre-clerkship curriculum in addition to providing instruction in anatomy, neuroscience, and pathology in the EVMS integrated Care Forward medical school curriculum. Unique to EVMS is the popular 'Anatomy Guy' website that is used to foster this education and viewed worldwide. The department is also intimately involved in providing the foundational basic science courses for several of EVMS's Master's level programs. In all endeavors, new innovative methods of course delivery and assessment are employed.

Research efforts within the department focus on sleep neurobiology and post-traumatic stress disorder. The department is well funded in these areas. Collaborations with other departments on stress and neuroimmune interactions and the effects of ionizing radiation on brain function are areas of active investigation. Educational grants have been awarded to department faculty for the development of innovative educational curricula including our 4-year ultrasound curriculum. The department also oversees the EVMS Biorepository, which holds over 85,000 specimens available for research by EVMS faculty and collaborators.

The department has a diverse faculty with varied interests in education, research and service. Faculty are active in traveling outside of EVMS to lecture on topics of interest to our community. Many of the seminars and presentations deal with neuroscience, mental health and educational initiatives in the basic sciences.

The department is cognizant of the health needs of our active duty soldiers, veterans and military retirees and is proud to provide faculty support to EVMS's military medicine club and to our students with military commitments. Given the large number of military, veterans and retires in the Hampton Roads area we look for venues where we can support them through education, research and community service.

Student recognition is another key departmental undertaking. Annually, students are selected for membership in the Association of Pathology Chairs Honor Society, and for graduation awards in anatomy, neuroscience, and pathology. The department also has an outstanding record for recruiting students to pursue postgraduate training in pathology. For the Class of 2014, 7 graduating students out of a class of 124 students pursued pathology residencies, which is well above the national average.

The Department is also proud to have established the Nicholas A. D'Amato M.D. memorial lecture. Dr. D'Amato was a Navy veteran, and long-time EVMS faculty member well versed in anatomy, pathology, medical education and the humanities. Please read more about Dr. D'Amato on the website. Donations to the EVMS Foundation to support the Nicholas A. D'Amato lecture, or to the Pathology and Anatomy Department to fund faculty development as well as faculty and student research are welcomed.

To learn more about the Department, visit https://www.evms.edu/education/schools_institutes_centers_departments/pathology_anatomy/

Specialty Advising: Pathology

Are you competitive?

Competitiveness: Less competitive
Mean Step 1/2 score: 231/244 (EVMS pathology graduates 2014-18)
Mean Step 1/2 score: 233/242 (AAMC Charting Outcome Data 2020)
Total number of programs: 164
Interview timing: October-January
Away rotations: Required
Research: Helpful

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=182)	Unmatched (n=9)
Mean number of contiguous ranks	10.9	5.1
Mean USMLE Step 1 score	**233**	**210**
Mean USMLE Step 2 score	**242**	**225**
Mean number of research experiences	3.3	2.3
Mean number of abstracts, presentations, publications	7.3	3.7
Mean number of volunteer experiences	6.2	4.1
Percentage who are AOA members	11.0	0.0
Percentage who have another graduate degree	14.2	44.4

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

PATHOLOGY Q&A

AWAY ROTATIONS: Are away rotations required? Yes! **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day – you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. This is particularly helpful for your competitive "reach" programs.

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Three, with at least one from a pathologist, and if you have a mentor from a different department who knows you well, that's a good letter to include as well. LoRs reflect not only your accomplishments but also your ability to form meaningful relationships with faculty. *Note: This is the most cited factor for program directors.*

M1-M2 checklist:

☑ AAMC Careers in Medicine Assessment
☑ LGM / Shadow clinicians
☑ Attend specialty talk panels, workshops, and other advising sessions
☑ Join student groups
☑ Begin research projects
☑ M1/M2 summer experience

M3-M4 checklist:

☑ Request a pathology rotation during your **Career Exploration** clerkship.

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/ alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

PATHOLOGY ADVISORS: EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

PATH ALUMNI:
alumni@evms.edu

PAT400: Anatomic and Clinical Pathology

Category: Elective

Course Information

Course Director	Erik Shanahan, MD	**Period Offered**	All Blocks
Location	Naval Medical Center Portsmouth	**Duration**	4 weeks
Main Contact	Rachel Darling usn.hampton-roads.navhospporsva.list.NMCP-MedStudentCoordinator@mail.mil 757-953-0672 or 757-953-3677	**# of Students**	2 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Priority given to HPSP students July-October. To request this elective CLICK HERE. Click on "Request for Clerkship/Interview" in the bottom left corner

Course Description

Laboratory medicine is an exciting and broad discipline that includes anatomic pathology (surgical pathology, autopsy pathology and cytology), clinical pathology (hematology, chemistry and microbiology), and transfusion medicine (clinical transfusion medicine and blood banking). The goal of this rotation is to provide an opportunity to learn the functional aspects of each of these areas, the appropriateness of test ordering and the processes involved in arriving at specific diagnoses, thereby fostering understanding and better working relationships between clinicians and the laboratory. Students will have the opportunity to rotate through all of the major areas of the anatomic and clinical laboratories and any other areas of special interest, time permitting.

Course Objectives

1. Be present each day of the rotation.
2. Participate in department consensus conference.
3. Attend tumor boards as scheduled.
4. Prepare and present a short lecture on a pathology topic to the departmental medical staff.
5. Rotate through each of the laboratory divisions.
6. Participate in autopsies as available.
7. Participate in fine needle aspiration biopsies.
8. Participate in specimen grossing and frozen section diagnoses.
9. Review surgical pathology and cytology cases with staff members.
10. Review clinical laboratory studies with a staff member.
11. Self-study as needed or directed.

Course Specifics

Report First Day Graduate Medical Education Office, Bldg. #3, 3rd floor at 8:00 a.m. on first day of rotation for check-in documents, before proceeding to Dept. of Laboratory Medicine, Building #2, 1st Floor.

Student Efforts

0% of time inpatient setting	35 hours/week of direct patient care
0% of time in trauma/ICU	5 hours/week of didactics
100% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation Rotators will be evaluated based on elements of the ACGME defined six core competencies of patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice. In addition to staff observation, there will be a 15 minute didactic presentation by the student on a case/topic of his/her choice.

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Naval Medical Center Portsmouth

PAT401: Gross Anatomical Pathology of Trauma and Sudden Death

Category: Elective

Course Information

Course Director	Wendy Gunther, MD	**Period Offered**	All Blocks
Location	Office of the Chief Medical Examiner 830 Southampton Ave. Ste 100, Norfolk	**Duration**	4 weeks
		# of Students	1 per block
Main Contact	Donna Price donna.price@vdh.virginia.gov 757-683-8366	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

The role of the Medical Examiner in the community is investigating deaths in the public interest of the administration of justice and detecting hazards to public health and safety. Pathology of sudden death and trauma.

Course Objectives

1. Evaluation of possible pathology from review of historical circumstances surrounding death.
2. Clinico-pathological correlation.
3. To review gross anatomy and gross pathology.
4. Interpretation of trauma and its mechanism of causation of injury and its ultimate pathophysiology.
5. Become aware of legal consequences of medical practice; review how to testify in court as an expert witness.
6. Understand the local medical examiner system in Virginia; consider service to the Commonwealth as an LME following licensure.

Course Specifics

Report First Day
Report to OCME at 0800 hours with EVMS photo ID. We will supply scrubs. EVMS supplies personal protective equipment to include N95 mask, hair and foot covers, gown, and gloves; student coordinates with Academic Affairs to obtain and transport supplies. Student supplies autopsy operations appropriate shoes. No jeans, shorts, t-shirts or open-toed shoes.

Student Efforts
N/A % of time inpatient setting
N/A % of time in trauma/ICU
N/A % of time in outpatient setting
N/A hours/week of direct patient care
N/A hours/week of didactics
N/A hours/week of asynchronous activities

Evaluation
100% clinical observation; optional presentation

Additional Physicians Participating in Teaching
Elizabeth Kinnison, MD

Site Compliance

Hospital 1: Non-hospital experience

PAT409: Pathology

Category: Elective

Course Information

Course Director	Dennis Rowley, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital	**Duration**	4 weeks
Main Contact	Dennis Rowley, MD darowley@sentrara.com 757-388-3221	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Anatomic and clinical are offered. Course content can be flexible with regards to student interest in a particular subject matter. Gross and microscopic anatomic pathology will be emphasized. Students may assist in autopsies. Clinicopathologic correlation will be stressed. Sentara Norfolk General Hospital is a private surgical pathology practice which has involvement in academic work. Students will gain experience in utilization of state of the art diagnostic procedures including immuno-peroxidase studies, molecular pathology, and flow cytometric immunophenotyping. Students have the opportunity to explore pathology with regard to possible career choice or to augment knowledge of tissue pathology as it pertains to other specialties such as surgery, oncology, radiology, etc.

Course Objectives

1. Familiarization with the role of the anatomic pathologist.
2. Handling of fresh tissue for pathologic studies.
3. Basic history and microscopic pathology.
4. Appropriate use of intraoperative consultation.
5. Medical autopsy protocol.
6. Review of pathology terminology and concepts with application to clinical settings.

Course Specifics

Report First Day Department of Pathology, second floor, A-wing.

Student Efforts

50% of time inpatient setting
0% of time in trauma/ICU
50% of time in outpatient setting

20 hours/week of direct patient care
2 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching All SNGH Pathologists

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

Department of Pediatrics

Children's Hospital of The King's Daughters is the focus of all pediatric undergraduate, graduate and post-graduate training.

In addition to over 350 full-time faculty, EVMS Pediatrics also boasts a fully accredited three-year pediatric residency program, providing educational and clinical experiences in all aspects of pediatric medicine for over 50 years.

Post-residency training also exists through EVMS Pediatrics. EVMS and CHKD partner to offer four outstanding pediatric fellowship opportunities:

- Child Abuse
- Emergency Medicine
- International Peds Emergency Medicine
- Simulation in Medical Education

In addition to serving graduate and post-graduate trainees, EVMS Pediatrics aims to educate the next generation of pediatric professionals both locally and throughout the country. This is achieved by facilitating:

- Conferences
- Membership organizations (Tidewater Pediatrics Society & Virginia AAP)
- Online Resources

Outside of typical clinical settings, scientific investigation and new discoveries in pediatric medicine are being made within the EVMS Pediatrics laboratories to improve upon the quality of life for children.

To learn more about the Department visit: https://www.evms.edu/pediatrics/#education

Specialty Advising: Pediatrics

Are you competitive?

Competitiveness: Competitive
Mean Step 1/2 score: 228/244 (EVMS pediatrics graduates 2014-18)
Mean Step 1/2 score: 228/245 (AAMC Charting Outcome Data 2020)
Total number of programs: 222
Interview timing: October-January
Away rotations: Not required
Research: Not required but helpful

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=1633)	Unmatched (n=27)
Mean number of contiguous ranks	12.9	4.6
Mean USMLE Step 1 score	**228**	**215**
Mean USMLE Step 2 score	**245**	**232**
Mean number of research experiences	2.9	2.6
Mean number of abstracts, presentations, publications	4.9	4.6
Mean number of volunteer experiences	8.8	9.3
Percentage who are AOA members	12.3	3.7
Percentage who have another graduate degree	15.9	18.2

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

PEDIATRICS Q&A

AWAY ROTATIONS: Are away rotations required? EVMS has a large selection of Pediatrics rotations so it isn't required. **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day – you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. This is particularly helpful for your competitive "reach" programs.

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	8:5 (13 students)	Data Pending	1-2 (range)	Blocks 2-4

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Three or four, from pediatric faculty, including the Chair, and if you have a mentor from a different department who knows you well, that's a good letter to include as well. LoRs reflect not only your accomplishments but also your ability to form meaningful relationships with faculty.

M1-M2 checklist:

- ☑ AAMC Careers in Medicine Assessment
- ☑ LGM / Shadow clinicians
- ☑ Attend specialty talk panels, workshops, and other advising sessions
- ☑ Join student groups
- ☑ Begin research projects
- ☑ M1/M2 summer experience

M3-M4 checklist:

☑ Schedule a meeting with Pediatrics Chair C.W. Gowen, MD to formally request a letter.

☑ Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/ alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

PEDIATRIC ADVISORS: EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

COORDINATOR:
pedres@chkd.org

PEDS ALUMNI:
alumni@evms.edu

AAP RESOURCE

PED405: Pediatric Acting Internship

Category: AI, Elective

Course Information

Course Director	C.W. Gowen, MD	**Period Offered**	Blocks 2-9
Location	Children's Hospital of The Kings Daughters	**Duration**	4 weeks
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**# of Students**	7 per block
		Visiting Students	Yes
		Night Call	Yes
		Pre-Requisites/Restrictions	None

Course Description

The Acting Internship (AI) experience is designed to encourage senior medical students to assume patient care responsibilities similar to those of an intern (PGY-1 resident), including call.

The purpose of this course is to provide the student with the opportunity to further develop his/her clinical skills and knowledge in pediatrics. Under the supervision of the faculty attending and supervising resident, the student will admit patients, perform history and physical examinations, write orders, discuss the case with the supervising resident and attending, make daily rounds with the pediatric team, and perform clinical procedures. This elective is designed to give the student considering a career in pediatrics the opportunity to function as an acting-intern on a pediatric ward and to assess his/her suitability and interest in pediatric residency training.

Course Objectives

1. Demonstrate the ability to perform a detailed history and physical examination on children and adolescents.
2. Will demonstrate the ability to develop a differential diagnosis and to institute a detailed management plan for the pediatric patient.
3. Exhibit the skills and knowledge to perform clinical procedures on the pediatric patient such as blood drawing and performing a lumbar puncture.
4. Interpret laboratory and radiographic studies.

Course Specifics

Report First Day Student will be contacted prior to the start of the elective

Student Efforts
100% of time inpatient setting
0% of time in trauma/ICU
0% of time in outpatient setting

60 hours/week of direct patient care
8 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching All Physicians at CHKD

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED414: Ambulatory Pediatric Medicine

Category: AMB, Elective

Course Information

Course Director	John Harrington, MD	**Period Offered**	All Blocks
Location	Children's Hospital of The Kings Daughters	**Duration**	4 weeks
Main Contact	Kristen Pinter Kristen.Pinter@chkd.org 757-668-7179	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

This elective is designed to give the student experience in the diagnosis and management of common acute illnesses in children, the essential features of well child and adolescent care including developmental assessment and health maintenance and common long-term illness management including ADHD and Asthma of children in the General Academic Pediatrics Outpatient Center. Students will be supervised by multiple pediatric attending physicians in the General Academic Pediatrics Outpatient Center.

Course Objectives

By the completion of the elective, the student:

1. The student shall demonstrate the skills and knowledge to perform a complete and detailed examination on a well-child 0-21 years of age.
2. The student shall become skilled in the performance of a complete developmental assessment on children under five years of age.
3. The student shall demonstrate the skills and knowledge to perform a complete and detailed examination on an acutely ill child or adolescent.
4. The student shall acquire the knowledge to develop a differential diagnosis and to institute a detailed management plan for the most commonly encountered acute illnesses.
5. The student shall become knowledgeable about the functions of the members of the pediatric health care delivery team.
6. Students will learn about what a Patient Centered Medical Home is and provide optimal care to patients diagnosed with asthma, ADHD and mental health problems.

Learning Activities:

1. Students will have the opportunity to be closely supervised and assisted by the faculty in the delivery of acute care, well baby care, and general pediatric medicine.
2. Participate in continuity clinic curriculum via online http://pediatrics.evms.edu/residency/passport/index.html
3. Students will learn about vaccines and be supervised in giving IM and SQ injections of vaccines during their rotation in GAP.

Course Specifics

Report First Day General Academic Pediatrics, CHKD, 1st Floor

Student Efforts

0% of time inpatient setting	30 hours/week of direct patient care
0% of time in trauma/ICU	8-10 hours/week of didactics
100% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation 90% clinical observation, 10% literature review and presentation of clinical topic

Additional Physicians Participating in Teaching Dionne Palmer, MD; Heidi Flatin, MD; Steve Restaino, DO; Michelle Brenner, MD; Natasha Sriraman, MD; Tom Hubbard, MD; Carolyn Moneymaker, MD

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED402: Pediatric Endocrinology Clinical Experience Category: AMB, Elective

Course Information

Course Director	Marta Satin-Smith, MD	**Period Offered**	All Blocks
Location	Children's Hospital of The Kings Daughters	**Duration**	4 weeks
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Opportunity to become acquainted with endocrine problems of childhood and adolescence. Students will learn about the more common endocrine problems and how they are managed. They will also learn about the impact of chronic disease on physical and psychosocial-emotional growth.

Course Objectives

1. Do a comprehensive history and physical exam.
2. Identify the common pediatric endocrine problems and understand the management of those problems.
3. Be able to interpret common endocrine laboratory data.
4. Be able to describe the underlying pathophysiology and biochemistry of common pediatric endocrine disorders.

Course Specifics

Report First Day Medical Offices, Children's Hospital of The Kings Daughters, Room 2C-A14

Student Efforts

5% of time inpatient setting
0% of time in trauma/ICU
95% of time in outpatient setting

35 hours/week of direct patient care
5 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Eric Gyuricsko, MD; Nicole Nejedly, MD; Melinda Penn, MD; Kent Reifschneider, MD; Melissa Russell, MD

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED403: Pediatric Cardiology

Category: AMB, Elective

Course Information

Course Director	Rose Cummings, DO	**Period Offered**	Blocks 4-9
Location	Children's Hospital of The Kings Daughters	**Duration**	4 weeks
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

This is primarily an outpatient cardiology clinic rotation with opportunities to observe surgeries, TEEs, catheterizations, advanced imaging, and EP studies. The student will learn the clinical signs and symptoms of the major congenital and acquired pediatric cardiac conditions. Self-directed reading of primary articles as well as texts will be required. Relevant EKGs echocardiography, x-rays and physical exam findings will be reviewed.

Course Objectives

By the completion of the elective, the student will be able to:

1. Take a detailed cardiovascular history, perform a cardiovascular physical examination, order appropriate tests, and formulate these results into a logical diagnosis and plan of management.
2. Describe the symptoms and physical findings of congestive heart failure in infants and children.
3. Understand the anatomy, pathophysiology, clinical manifestations, natural history and therapeutic management of the more common congenital and acquired heart disease in infants and children.
4. Describe cardiac hemodynamics and be able to correlate these events with physical findings.
5. Interpret pediatric electrocardiograms in relation to age.
6. Recognize on chest x-rays, enlargement of great vessels and heart chambers and changes in pulmonary vascular markings.
7. Have a general understanding of the indications and usage of noninvasive (echocardiogram, exercise stress test) and invasive studies (cardiac catheterization and angiography).
8. Know the basic pharmacology including indications and contraindications for common cardiovascular drugs.

Course Specifics

Report First Day Cardiology, Children's Hospital of The Kings Daughters

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
100% of time in outpatient setting

30-40 hours/week of direct patient care
5 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Alexander Ellis, MD; Robert Escalera, MD; Jonathan Fleenor, MD; Lopa Hartke, MD; John Reed, MD; Elliot Tucker, MD; Michael Vance, MD

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED415: Pediatric Critical Care Medicine

Category: CC, Elective

Course Information

Course Director	Chris Foley, MD	**Period Offered**	All Blocks
Location	Children's Hospital of The Kings Daughters	**Duration**	4 weeks
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	Yes
		Pre-Requisites/Restrictions	None

Course Description

This elective is designed to familiarize the student with the subspecialty of pediatric critical care medicine. The student shall become familiar with the management of critically ill children who have a variety of medical and surgical problems. The student will be familiar with the social, ethical and medical-legal issues associated with the practice of critical care. The student will function as a house officer under the direct supervision of the attending and senior residents on the PICU service.

The rotation allows flexibility in order to accommodate opportunities to go on pediatric transports or go into the operating room to observe surgery and/or anesthesia.

Course Objectives

By the completion of the elective, the student:

1. Understand basic recognition, evaluation and appropriate intervention of an acute life threatening process. The student should develop an appreciation of resuscitative and support skills to achieve the initial stabilization of the critically ill child.
2. Understand basic pathophysiology of critical illness focusing primarily on the central nervous system, pulmonary system, cardiovascular system, hepatic system, renal system, nutrition and shock mechanisms.
3. Understand the basic appreciation of pharmacotherapy in critically ill children.

Responsibilities:

1. The student will follow patients in the PICU under the supervision of a senior pediatric or ER resident and the PICU attending. Students will be expected to admit and work up patients assigned to them by the senior resident or PICU attending. These patients will be followed on a daily basis by the student.
2. Students will be required to present their patients on rounds. They should be able to discuss the patient's diagnosis and management plan under the supervision of a pediatric senior resident and the PICU attending.
3. Students will be responsible for initial admission notes, writing orders, daily progress notes, and communication with consultants and primary care physicians.
4. Students may be responsible for preparing or assisting with a case conference dealing with specific topics in ICU medicine.
5. Students may have an opportunity to assist or perform procedures in the PICU under the supervision of the PICU attending, Priority for procedures is given to pediatric and emergency medicine residents rotating through the PICU.

Course Specifics

Report First Day Pediatric Intensive Care Unit, 3rd Floor, CHKD at 7:15 am

Student Efforts

0% of time inpatient setting	50 hours/week of direct patient care
100% of time in trauma/ICU	10 hours/week of didactics
0% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Thomas Cholis, MD; Meaghan Dominy, MD; Jenna Fine, DO; Robert Gomez, MD; Lara Mamikonian, MD; Diana Pang, MD; Chie-Youn Shih, MD

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED426: Child Abuse Pediatrics

Category: Elective

Course Information

Course Director	Michelle Clayton, MD, MPH	**Period Offered**	All Blocks
Location	CHKD, Child Abuse Program 935 Redgate Avenue, Norfolk	**Duration**	2 or 4 weeks
		# of Students	1 per block
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**Visiting Students**	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

During this observation-only rotation, students will become familiar with the forensic medical and mental health assessment of children with suspected sexual abuse, physical abuse, and/or neglect. Basic knowledge of child abuse pediatrics will be acquired via observation of inpatient and outpatient consultations, clinic appointments, and court testimony; attendance at multidisciplinary team meetings; and observation of program staff and faculty in a variety of disciplines performing evaluations.

Course Objectives

By the completion of the elective, the student will:

1. Understand the presentation and evaluation of child physical abuse cases, and be able to formulate a differential diagnosis for suspected abusive injuries.
2. Understand how to document injuries which are suspected to be the result of inflicted trauma.
3. Be able to perform a complete forensic genital examination on male and female children, and appropriately document findings.
4. Understand the dynamics of parent-child interactions. Understand the principles of forensic interview of children.
5. Understand the importance of domestic violence screening in child abuse.
6. Understand the reporting laws for child abuse.
7. Know the community resources available for the investigation of child abuse cases, including the function of a multidisciplinary team.

Course Specifics

Report First Day Child Abuse Program, 935 Redgate Avenue

Student Efforts

0-25% of time inpatient setting
0-25% of time in trauma/ICU
25-50% of time in outpatient setting

0 hours/week of direct patient care
2 hours/week of didactics
10 hours/week of asynchronous activities

Evaluation 80% clinical observation, 20% literature review and presentation of journal article or PowerPoint presentation.

Additional Health Professionals Participating in Teaching Dawn Scaff, MSN; Kathy Phillips, BS; Erinn Portnoy, LCSW

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED411: Pediatric Gastroenterology, Hepatology and Nutrition

Category: AMB, Elective

Course Information

Course Director	V. Marc Tsou, MD	**Period Offered**	Blocks 2-9
Location	Children's Hospital of the Kings Daughters	**Duration**	4 weeks
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

A comprehensive rotation encompassing all aspects of the discipline of pediatric gastroenterology, hepatology and nutrition. The student will work with all age groups, from newborn to young adult, in the inpatient and outpatient setting. Travel to satellite offices is the student's option but it may help to optimize the overall experience. The student will observe procedures, such as endoscopy, dilation, manometry and liver biopsy. Attendance at all GI-related conferences is expected and a short oral presentation on a mutually agreed topic will be required.

Course Objectives

By the completion of the elective, the student:

1. To learn how to perform a comprehensive history and physical emphasizing all aspects of the gastrointestinal tract.
2. Understand the role of diagnostic testing in problems related to the GI tract.
3. Understand the physiology of the hepatobiliary system, pancreas, stomach, intestinal tract, etc.
4. Become familiar with the pathophysiology of common GI disorders in the pediatric population, such as vomiting, constipation, abdominal pain, diarrhea, hepatitis and inflammatory bowel disease.
5. To learn about nutrition as it relates to disease and health maintenance.

Course Specifics

Report First Day Pediatric GI Outpatient Suite, 4th floor, CHKD, 0830

Student Efforts
10% of time inpatient setting
0% of time in trauma/ICU
90% of time in outpatient setting

36 hours/week of direct patient care
4 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Rana F. Ammoury, MD; Orhan K. Atay, MD; Michael R. Konikoff, MD; Nancy U. Yokois, MD; Sameer P. Lapsia, MD

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED409: Pediatric Hematology/Oncology

Category: AMB, Elective

Course Information

Course Director	William Owen, MD	**Period Offered**	All Blocks
Location	Children's Hospital of The Kings Daughters	**Duration**	4 weeks
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Course Director approval required

Course Description

The purpose of this elective is to provide the student with an opportunity for practical application of acquired knowledge and skills pertaining to pediatric hematology/oncology. The student's clinic time will be spent in the outpatient practice.

Course Objectives

By the completion of the elective, the student:

1. Evaluate a peripheral blood smear.
2. Work up a patient with a solid tumor.
3. Work up suspected anemia, leukemia, and coagulation disorders.
4. Diagnose and treat iron deficiency.
5. Diagnose and outline the management for the various sickle cell related complications.
6. Give the characteristics and common side effects of the chemo-therapeutic agents most often used in pediatric oncology.
7. Describe the principles of comprehensive management of the common pediatric malignancies.
8. Be knowledgeable in the functions of the pediatric hematologist/oncologist and how to consult with one effectively.

Learning Activities:

1. Students will review peripheral blood and bone marrow smears on both current patients and learn physiologic aspects of pediatric hematology and oncology.
2. Students will participate in the pediatric tumor conferences.
3. Students will work closely with faculty and residents on a case basis in the outpatient area.
4. Student will receive interactive one on one or small group talks with attending physicians on topics of pediatric hematology/oncology.

Course Specifics

Report First Day CHKD, Medical Staff Office Suite, 8:00 am (Monday, 7:45 am, Hematology/Oncology Clinic)

Student Efforts

5% of time inpatient setting
0% of time in trauma/ICU
95% of time in outpatient setting

35 hours/week of direct patient care
5 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Wilson File, MD; Eric Lowe, MD; Melissa Mark, MD; Linda Pegram, MD; Katherine Watson, MD; Eric Werner, MD

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED406: Pediatric Infectious Disease

Category: AMB, Elective

Course Information

Course Director	Randall Fisher, MD	**Period Offered**	All Blocks
Location	Children's Hospital of the Kings Daughters	**Duration**	4 weeks
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

The student will gain experience in the diagnosis, evaluation, and treatment of infectious diseases in both inpatient and outpatient settings. Inpatient experience is mostly in a consultative role, which allows the student to focus on the infectious disease issues. Work is distributed to maximize learning. Students are encouraged to delve into the literature about patients or conditions they find particularly interesting. The outpatient clinic provides experience with acute infectious problems outside the realm of the generalist's knowledge. In addition, patients with sub-acute or chronic infections or immune-compromising conditions are followed. Weekly city-wide infectious diseases case conference provides additional didactic learning, and contact with many ID-trained sub-specialists.

Course Objectives

By the completion of the elective, the student:

1. Learn how a sub-specialist approaches the history, physical examination, and diagnostic process in patients with infectious diseases.
2. Learn about the appropriate use and interpretation of laboratory tests, including serologic assays, PCRs, and bacterial, fungal, and viral cultures.
3. Understand the basics of anti-microbial use and misuse, including the mechanism of action of various classes of antibiotics, narrow versus broad-spectrum antibiotics and their appropriate uses, and the development of anti-microbial resistance.
4. Learn the basics about maternal-fetal transmission of HIV, care of the HIV-exposed infant, and the day-to-day care of children with HIV infection and AIDS, including the use of anti-retrovirals, rationale for and appropriate use of prophylaxis against opportunistic infections, and the approach to the care of an HIV-infected child with a febrile illness.
5. Understand how a microbiology laboratory functions, how a specimen is processed, and which treatment decisions can be based on data obtained from the microbiology lab.

Course Specifics

Report First Day Contact Dr. Fisher two weeks prior to the start of the elective

Student Efforts

50% of time inpatient setting
0% of time in trauma/ICU
50% of time in outpatient setting

36 hours/week of direct patient care
1 hours/week of didactics
3 hours/week of asynchronous activities

Evaluation Evaluation of students is based mostly upon clinical observation. No examination is administered.

Additional Physicians Participating in Teaching Kenji Cunnion, MD; Laura Sass, MD

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED401: Neonatal-Perinatal Medicine

Category: CC, Elective

Course Information

Course Director	Brett Siegfried, MD	**Period Offered**	All Blocks
Location	Children's Hospital of The Kings Daughters	**Duration**	4 weeks
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**# of Students**	2 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

This elective is designed to familiarize the student with the Neonatal Intensive Care Unit (NICU) at CHKD and to participate in the management of neonates under direct supervision of the neonatal-perinatal medicine faculty. Students will be able to apply the basic sciences (physiology, biochemistry, and microbiology) to the care of sick neonates. This elective is designed to allow the student to function as an acting intern in the NICU. When taking night call, the student will have the opportunity to accompany the attending neonatologist and pediatric residents in the delivery room to attend high risk deliveries.

Course Objectives

By the completion of the elective, the student:

1. The student will demonstrate the ability to perform an initial evaluation, including prenatal history and physical examination, on a newborn admitted to the NICU.
2. The student shall demonstrate the ability to develop a differential diagnosis and to institute a management plan.
3. The student shall demonstrate knowledge of the indication for the following procedures on term and premature infants: venipuncture, arterial puncture, umbilical catheterization, lumbar puncture, needle aspiration of pneumothorax, gestational age assessment, and resuscitation of the newborn. The student will have the opportunity to participate in/perform procedures as appropriate clinical opportunities arise.
4. The student shall exhibit the ability to calculate and write fluid and caloric intakes.
5. The student shall become knowledgeable in the functions of the various members of the neonatal team, e.g., nurses and respiratory therapists.
6. The student shall become knowledgeable in the functions of the neonatologist/perinatologist and how to consult with one effectively.

Course Specifics

Report First Day CHKD NICU

Student Efforts
0% of time inpatient setting
77% of time in trauma/ICU
0% of time in outpatient setting

35 hours/week of direct patient care
10 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Jamil Khan, MD; Rachel Armentrout, MD; Thomas Bass, MD; Kathryn Colacchio, MD; Glen Green, MD; CW Gowen, MD; Kirk Sallas, MD; Tushar Shah, MD; Kenneth Tiffany, MD

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED412: Pediatric Nephrology

Category: AMB, Elective

Course Information

Course Director	J. Bryan Carmody, MD	**Period Offered**	All Blocks
Location	Children's Hospital of the Kings Daughters	**Duration**	2 or 4 weeks
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	Prior arrangement required

Course Description

A comprehensive experience in pediatric nephrology. Includes daily inpatient rounds, consultations, outpatient clinics. Emphasis on clinical diagnosis and management of hypertension and acute and chronic renal diseases including fluid-electrolyte, acid-base, and kidney failure.

Course Objectives

1. To learn diagnostic criteria of pediatric renal disease.
2. To learn diagnostic criteria of acute renal failure.
3. To learn interpretation and clinical diagnosis of fluid and electrolyte disorders.
4. To learn interpretation and clinical diagnosis of acid-base disorders.
5. To learn management of acute and chronic renal failure.
6. To learn management of fluid electrolyte, acid-base disorders.
7. To observe special procedures such as renal biopsy, hemodialysis and peritoneal dialysis.
8. To learn anatomic and physiologic renal correlation with clinical diseases.

Enabling Objectives:

1. Recognize differential diagnosis of acute and chronic renal failure and understand and organize management plans.
2. Utilize anatomic and physiologic correlation with diagnosis and treatment of disorders particularly glomerulopathies.
3. Diagnose fluid and electrolyte and acid-base disorders and formulate a management plan.
4. Be knowledgeable in the functions of the pediatric nephrologist and how to consult with one effectively.

Course Specifics

Report First Day Contact two weeks prior to the start of the elective

Student Efforts

5% of time inpatient setting
0% of time in trauma/ICU
95% of time in outpatient setting

35 hours/week of direct patient care
5 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Irene Restaino, MD

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED420: Pediatric Pulmonology

Category: AMB, Elective

Course Information

Course Director	Jose Chocano, MD	**Period Offered**	Blocks 3-9
Location	Children's Hospital of The Kings Daughters	**Duration**	4 weeks
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

The student will actively participate as a member of the division, on an outpatient basis. Student will either shadow or independently see patients in clinic. Inpatient time is to be expected when there are no clinics. Attendance at general pediatric conferences will be expected.

Course Objectives

1. Perform the initial assessment including history and clinical presentation and development of differential diagnoses for common outpatient pediatric diseases, including asthma, bronchopulmonary dysplasia, apnea, cystic fibrosis, and congenital anomalies of the pulmonary system.
2. Interpret common diagnostic tests including pulmonary function tests, chest x-ray, bronchoscopy findings, and blood studies for immune dysfunction.

Course Specifics

Report First Day Pediatric Pulmonary Office with Pulmonary Attending of the month

Student Efforts

5% of time inpatient setting
0% of time in trauma/ICU
95% of time in outpatient setting

32 hours/week of direct patient care
10 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation Observation by Pulmonology Faculty including Frank Chocano, MD; Cynthia Epstein, MD

Additional Physicians Participating in Teaching Cynthia Epstein, MD

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED421: Allergy/Immunology Rotation

Category: AMB, Elective

Course Information

Course Director	Lauren Smith, MD	**Period Offered**	Blocks 3, 7-9
Location	Children's Hospital of the Kings Daughters	**Duration**	2 or 4 weeks
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Student will be involved directly in the evaluation and management of patients with allergic and immunologic disorders, including asthma, allergic rhinitis, atopic dermatitis, urticaria, food allergy, anaphylaxis, and recurrent infections. Knowledge and clinical experience will be obtained by learning to interpret blood levels for immune function, CXRs, PFTs, skin testing and food challenges.

Course Objectives

1. Understand how to evaluate a patient with asthma, determine the severity, and develop an appropriate treatment plan.
2. Learn the appropriate use of the various medications used in the treatment of asthma; understand the proper use of inhalers, spacers, and peak flow meters.
3. Learn how to recognize the child who may have allergies by acquiring proper history taking and physical examination skills.
4. Understand the various medications, including antihistamines and decongestants, used in the treatment of allergies.
5. Understand the principles of immuno-therapy and its appropriate use.
6. Learn how to evaluate and recognize children with a suspected primary immunodeficiency.
7. Understand the appropriate use of referrals to the allergist/immunologists.
8. Diagnose and understand food sensitization, food allergy and clinical outcomes.
9. Evaluate patients with urticaria and hereditary angioedema.

Course Specifics

Report First Day Pediatric Allergy/Immunology Division Office with the attending of the week

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
100% of time in outpatient setting

40 hours/week of direct patient care
4 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Angela Hogan, MD; Cynthia Kelly, MD; Kelly Maples, MD; Lindsey Moore, DO; Maripax Morales, MD

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED422: Pediatric Emergency Medicine

Category: AMB, CC, Elective

Course Information

Course Director	Nicole Schacherer, MD	**Period Offered**	Blocks 2-9
Location	Children's Hospital of The Kings Daughters	**Duration**	4 weeks
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	Yes; approx. 3-8 hour shifts
		Pre-Requisites/Restrictions	None

Course Description

This elective is located in the emergency department of the Children's Hospital of The King's Daughters. Students will be expected to see patients independently and then present the history, physical examination, assessment and plan to the ED attending physician in an efficient, organized manner. Participants in the elective will receive hands-on experience in managing a wide variety of medical and surgical problems that present to a busy pediatric emergency department. The ideal student for this rotation is one who is serious about experience in pediatric emergency medicine, can work independently and who is willing to work a full clinical schedule.

Course Objectives

1. Appreciate the specialty of pediatric emergency medicine and participate in the fullest to its practice
2. Develop a thorough systematic approach to pediatric emergency and the critically ill or injured pediatric patient
3. Demonstrate appropriate decision making for complex or critically ill pediatric patients who present to emergency department
4. Function in a multi-disciplinary team
5. Communicate plans and results of procedures and studies with patients and primary care physicians
6. Learn how to perform common procedures such as laceration repairs, incision and drainage of abscesses, pelvic exams, lumbar punctures, orthopedic reductions, and sedation

Course Specifics

Report First Day Will be contacted by Dr. Schacherer approx 2-4 weeks prior to the start date to develop a schedule

Student Efforts

0% of time inpatient setting
20% of time in trauma/ICU
0% of time in outpatient setting

32 hours/week of direct patient care
0 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Michelle Arzubi-Hughes, DO; James Burhop, DO; Joel Clingenpeel, MD; Margaret Eason, MD; Noelle Gabriel, MD; Sandip Godambe, MD; Rupa Kapoor, MD; Alexandra Leader, MD; Jill Miller, MD; Paul Mullan, MD; Michael Poirier, MD; Faiqa Qureshi, MD; Nicole Schacherer, MD; James Schmidt, MD; Melanie Weller, MD; Nicholas White, MD; Byron Weaver, MD; Vipin Philip, MD; Drexel Proctor, MD; Allison Wood, DO

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED416: Clinical Genetics

Category: AMB, Elective

Course Information

Course Director	Samantha Vergano, MD	**Period Offered**	All Blocks
Location	Children's Hospital of the Kings Daughters	**Duration**	4 weeks
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

This elective provides the student with a comprehensive introduction to the field of clinical genetics. Students have the opportunity to learn about a range of genetic disorders, genetic diagnostics and genetic counseling by participating in the evaluation of children in inpatient and outpatient settings.

Course Objectives

By the completion of the elective, the student:

1. Recognize the special complexity of evaluating patients and families with a genetic disease
2. Learn the indications for genetic testing and recognize the challenges in the interpretation of genetic information
3. Learn how medical genetics relates to other areas of medicine, especially regarding the concept of individualized medicine
4. Provide clinical care for patients with rare or undiagnosed genetic disease in a research environment
5. Learn to take a complete genetic history and construct a 3 generation pedigree
6. Learn to develop a genetic-based differential diagnosis by understanding the main classifications of genetic and metabolic diseases
7. Learn how to distinguish benign from causal genomic variants
8. Effectively communicate genetic information to patients, families, the patient care team, and nursing staff
9. Be able to effectively use online resources to identify, treat, and teach others about genetic conditions

Course Specifics

Report First Day	Call at least two weeks prior to the start of the elective	
Student Efforts	10% of time inpatient setting 5% of time in trauma/ICU 85% of time in outpatient setting	30-40 hours/week of direct patient care 1 hours/week of didactics 5 hours/week of asynchronous activities
Evaluation	100% clinical observation	
Additional Health Professionals Participating in Teaching	Kelly Jones, MD; Brianna Murray, MS, CGC; Lindsey Sawyer, MS, CGC	

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED419: Clinical Pediatric Neurology

Category: AMB, Elective

Course Information

Course Director	Michael Strunc, MD	**Period Offered**	All Blocks
Location	CHKD Health Center, 850 Southampton Ave, Norfolk VA 23510 and Community Physician Offices	**Duration**	4 weeks
		# of Students	1 per block
		Visiting Students	Yes
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**Night Call**	No
		Pre-Requisites/Restrictions	None

Course Description

Clinical experience with the wide spectrum of neurological disorders in children, including neuromuscular diseases, epilepsy, headache, brain tumors, neuro-degenerative diseases, and neonatal neurology.

Course Objectives

The student will do the following:

1. Acquire the fundamental skills of extracting a neurological history and performing a neurological examination.
2. Receive exposure to the various aspects of neonatal neurology: neonatal seizures, intra-ventricular hemorrhage, infantile hypotonia, inborn errors of metabolism, CNS malformations.
3. Learn the concepts of epilepsy classification, diagnosis, investigation, and pharmacological management.
4. Learn to evaluate and manage children with developmental disabilities, cerebral palsy, mental retardation, autism, and learning disabilities.
5. Become familiar with common outpatient neurological problems of childhood, such as headache/migraine, muscular dystrophy, myasthenia, neuropathy, tics and other involuntary movements, and paroxysmal disorders.
6. Become comfortable with the immediate and urgent management of status epilepticus, ataxia, coma/altered consciousness, and meningitis/encephalitis.
7. Learn, through case study, to develop differential diagnoses for common pediatric neurological problems.

Course Specifics

Report First Day Pediatric Neuro-Developmental Center, 850 Southampton Avenue (South Campus) Child and Adolescent Neurology, third floor.

Student Efforts

5% of time inpatient setting
0% of time in trauma/ICU
95% of time in outpatient setting

32 hours/week of direct patient care
10 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Sarah Chagnon, MD; Thomas Enlow, MD; Crystal Proud, MD; Svinder Toor, MD; Ryan Williams, MD

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED436: Virtual Pediatric Critical Care Medicine — Category: CC, Elective

Course Information

Course Director	Brooke Hooper, MD
Location	Virtual
Main Contact	Aileen Shafer shaferam@evms.edu 757-446-5050
Period Offered	All Blocks
Duration	Longitudinal for 2 weeks credit
# of Students	Unlimited
Visiting Students	No
Night Call	No
Pre-Requisites/Restrictions	None

Course Description

Designed to better prepare students, residents, and fellows to contribute to the diagnosis and management of the critically ill pediatric patient during their pediatric intensive care unit rounds. This virtual course features professionally-narrated modules with clear learning objectives, engaging case studies, interactive questions, and a list of additional resources for further exploration. An extensive topic selection is covered with lectures developed by content experts on each subject.

There are two components to this course:
1. Online Modules
2. Skills-Based Sessions

Students will need to successfully complete both components of the course. The skills-based sessions will be available as sessions during the TIPS: Residency weeks in Block 10.

Course Objectives

Upon completion of the course, participants should be able to:
1. Recognize emergent conditions and describe appropriate interventions
2. Analyze case scenarios and explain treatment options
3. Recommend treatment strategies for critically ill patients based on medical history, physical examination, and diagnostic data

Course Specifics

Report First Day Contact course contact for more information and log-in information. www.mysccm.org

Student Efforts

0% of time inpatient setting	0 hours/week of direct patient care
0% of time in trauma/ICU	5 hours/week of didactics
0% of time in outpatient setting	20-30 hours/week of asynchronous activities

Evaluation Successful completion of the virtual course and skills-based sessions

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Non-hospital experience

PEDTBD: Pediatric Rheumatology

Category: AMB, Elective

Course Information

Course Director	Cassyanne Aguiar, MD	**Period Offered**	All Blocks
Location	Children's Hospital of The Kings Daughters CHKD Oakbrooke CHKD Kempsville CHKD Oyster Point	**Duration**	2 or 4 weeks
		# of Students	1 per block
		Visiting Students	No
Main Contact	Cassyanne Aguiar Cassyanne.Aguiar@chkd.org 757-668-8572	**Night Call**	No
		Pre-Requisites/Restrictions	None

Course Description

The student will learn:

- Evaluation and treatment of patients with connective tissue diseases (e.g., vasculitis, systemic lupus erythematosus) and juvenile idiopathic arthritis.
- To collect information and perform a relevant physical examination with respect to a variety of rheumatologic conditions.
- Medications including oral DMARDS and the newer biological agents currently used in the treatment of rheumatologic conditions.

Course Objectives

By the completion of the elective, the student:

1. Obtain a targeted history from patients with rheumatologic diseases.
2. Perform a relevant physical examination with awareness of findings characteristic of rheumatic diseases.
3. Formulate a differential diagnosis of possible rheumatologic disorders.
4. Become proficient in rheumatologic evaluations
5. Understand the clinical use of cortiocosteriods, nonsteroidal anti-inflammatory agents, immunosuppressive agents used in rheumatologic disorders.

Course Specifics

Report First Day	Contact course director	
Student Efforts	10% of time inpatient setting 0% of time in trauma/ICU 90% of time in outpatient setting	hours/week of direct patient care hours/week of didactics hours/week of asynchronous activities
Evaluation	100% clinical observation	
Additional Physicians Participating in Teaching	None	

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED428: Pediatric Pain Medicine and Palliative Care Category: AMB, Elective

Course Information

Course Director	Ami Mehta, MD	**Period Offered**	Block 4
Location	Children's Hospital of The Kings Daughters with the potential for home visits	**Duration**	4 weeks
		# of Students	1 per block
		Visiting Students	No
Main Contact	Haree Krishna Pallera pedres@chkd.org 757-668-9994	**Night Call**	No
		Pre-Requisites/Restrictions	Course Director approval required

Course Description

This elective provides the student with an introduction to the fields of pediatric pain management and pediatric palliative care. Students have the opportunity to learn about a variety of medical conditions requiring palliative care and pain management by participating in the evaluation of children in inpatient and outpatient settings.

Course Objectives

By the completion of the elective, the student:

1. Recognize the medical and psychosocial complexity of evaluating patients with palliative care and pain needs.
2. Learn an introduction to pain medication management, from over the counter medications, to opioids, to adjuvant therapies.
3. Learn the complexities of treating pain with opioids, and gain familiarity with different opioids, learn their pharmacologic properties and their clinical indications.
4. Learn to take a complete pain history and understand the pathophysiology of chronic pain.
5. Gain an understanding of the emotional, spiritual and psychosocial burden of a patient
6. Effectively communicate with families when discussing goals of care and conversations surrounding end of life.
7. Understand the concept of both pain management and palliative care as a team sport.

Course Specifics

Report First Day Contact the course director the Friday prior to your start date

Student Efforts

50% of time inpatient setting
0% of time in trauma/ICU
50% of time in outpatient setting

20-30 hours/week of direct patient care
10 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

PED435: Pediatric Orthopedics

Category: AMB, Elective

Course Information

Course Director	Bettina Gyr, MD	**Period Offered**	Blocks 3-9
Location	Children's Hospital of The Kings Daughters CHKD Oakbrooke CHKD Kempsville CHKD Oyster Point	**Duration**	2 or 4 weeks
		# of Students	1 per block
		Visiting Students	No
Main Contact	Jennifer Gordon Jennifer.Gordon@CHKD.ORG 767-668-6550	**Night Call**	Yes
		Pre-Requisites/Restrictions	None

Course Description

In this course, students will learn how to diagnose and manage pediatric orthopedic conditions. A typical schedule includes: Mondays: students should plan to meet at CHKD at 0645 and then will head over to Kempsville at 0830. Tuesdays will be at Oyster Point at 0830. Wednesdays in the OR at CHKD main campus. Thursdays will be TBD (with other ortho MD). Fridays will be at Oakbrooke at 0700. Students should plan on having 1 day/week of home call at CHKD main campus and 1 weekend of home call starting at 1700 on Friday and ending on 0800 on Monday 1 time during the rotation at the main CHKD campus.

Recommended Text is *Surgical Exposures in Orthopaedics* by Stanley Hoppenfeld. Dr. Gyr will provide students with further reading material.

Course Objectives

By the completion of the elective, the student:

1. Gather the information necessary for care of a patient in a manner which is patient-centered, efficient and effective.
2. Formulate an appropriate assessment and develop an appropriate management plan for each patient.
3. Perform specified common procedures, demonstrating a knowledge of the indications, risks and benefits of the procedures in explanations to patients while appropriately obtaining informed consent.
4. Recognize when a patient is in a specific at-risk group and provide appropriate treatment and preventive measures.
5. Recognize patient safety issues and describe measures for preventing errors that may harm patients.
6. Demonstrate an understanding of the basic and clinical sciences necessary for medical practice.
7. Demonstrate a basic understanding of medical research principles.
8. Use information systems to optimize care delivery and improve outcomes.
9. For a given medical problem use evidence-based medicine principles to select the best diagnostic and therapeutic plans.
10. Demonstrate effective interpersonal and communication skills with patients and their families.
11. Present to other health care providers a concise, orderly and coherent oral and written communication of the patient's unique clinical presentation in a manner appropriate to the clinical context.
12. Demonstrate an ethical and professional attitude toward patients and their care.
13. Function effectively as a member of the health care team, respecting the roles and skills of other team members, communicating appropriately and working effectively within the team.
14. Demonstrate a recognition of one's own limitations and a commitment to professional growth.
15. Identify/recruit family or community resources and/or services of other members of the health care team for optimal patient care.
16. Discuss important issues in the health care system beyond the practice site.
17. Participate in and learn the value of service learning opportunities.

Course Specifics

Report First Day CHKD 3rd floor PICU conference room at 0630

Student Efforts

20% of time inpatient setting	40 hours/week of direct patient care
10% of time in trauma/ICU	2 hours/week of didactics
70% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching James T. Bennett, MD; Students will work with other Orthopedic surgeons if there are other interesting cases occurring simultaneously or if Dr. Gyr is off/out of town.

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

Department of Physiological Sciences

Welcome to Physiological Sciences at EVMS. Our mission is to improve human health by educating health care professionals and scientists and by advancing biomedical knowledge through cutting edge basic and translational research.

Our educational focus is to provide students with an integrated understanding of physiology, pharmacology and biochemistry that underpin cell structure and function, the mechanisms, interactions and applications of drugs, as well as metabolism and nutrition that are the foundations of clinical medicine.

We utilize contemporary and innovative technologies in its didactic lectures and small-group and team based clinical problem solving sessions and laboratories and encourage students to apply critical thinking and develop patient-oriented problem-solving skills.

To learn more about the Department, visit https://www.evms.edu/physiological_sciences/#education

PHY400: Regulation of Maternal Well-Being, Fetal Development and Fetal Origins of Adult Disease

Category: Elective

Course Information

Course Director	Gerald Pepe, PhD	**Period Offered**	All Blocks
Location	EVMS Lewis Hall	**Duration**	4 weeks
Main Contact	Gerald Pepe, PhD pepegj@evms.edu 757-446-5616	**# of Students**	6-8 per block
		Visiting Students	Yes, only in Block 4 & 5
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

This laboratory studies the role of estrogen on fetal placental development and impact of alterations in the maternal/fetal hormonal milieu as well as endocrine disruptors that mimic estrogen action (e.g. bisphenol) on placental and fetal development, maternal well-being, fetal programming, pregnancy outcome and risk for development of disease in adulthood. Studies show that estrogen regulates placental cellular invasion of the maternal uterine spiral arteries in early pregnancy a process that is essential for appropriate utero-placental blood flow and which when defective leads to development of maternal hypertension and preeclampsia as well as compromise fetal growth leading to IUGR. Studies also show that estrogen in the second half of gestation regulates placental catabolism of maternal stress hormones (e.g. cortisol) and programs fetal organ/metabolic systems important for insulin action and thus prevention of insulin resistance (e.g. diabetes) in adulthood. The student will be expected to choose one or more of these or other clinical complications of human pregnancy (e.g. preeclampsia, IUGR; gestational diabetes, prematurity; placenta accreta), summarize the etiology, clinical manifestations etc. and via library search and interaction/discussion with Dr. Pepe to summarize and integrate the relevant basic science research being performed to elucidate cause, improve treatment and enhance fetal-maternal well-being and pregnancy outcome.

Course Objectives

To make the student aware of the:

1. Importance, uses and appropriate applications, i.e. translation of basic science studies to clinical sciences/medicine.
2. The impact of the intrauterine hormonal milieu and programming (epigenetics) on fetal development and origins of adult disease

To enhance the independent learning skills of the student by:

1. Perusal of the scientific literature and the translational research pertinent to the project identified
2. Preparation of a paper outlining the goals, methods, and significance of the research project identified and integration of the basic science that underpins normal fetal-placental development

Course Specifics

Report First Day Student will be contacted several weeks before the start date to meet with Dr. Pepe

Student Efforts

N/A % of time inpatient setting
N/A % of time in trauma/ICU
N/A % of time in outpatient setting

N/A hours/week of direct patient care
N/A hours/week of didactics
Independent work to write paper hours/week of asynchronous activities

Evaluation Based on completion of objectives and paper

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Children's Hospital of The Kings Daughters

Department of Physical Medicine & Rehabilitation

Our department includes board-certified pediatric physiatrists and pain management specialists. Our faculty is dedicated to patient care and teaching residents, fellows and medical students in one-on-one clinical situations. Faculty participates in four to six hours a week of formal resident lectures, journal club and clinical case conferences on electrodiagnostics, gait analysis, sports medicine, ethics and practice management. Faculty members are also actively involved in research.

The Department of Physical Medicine and Rehabilitation (PM&R) offers a three-year accredited residency training program (PGY2-PGY4) for a total of eleven residents. It provides comprehensive inpatient and outpatient training experience for specialty care of patients with traumatic brain injury, stroke, spinal-cord injury, trauma, amputee, orthopedic/spine injury, sports injury, pain and neuromuscular disorders.

In addition, we offer a one-year accredited pain management fellowship. Our fellows learn comprehensive medical evaluation, diagnosis and management of patients presenting with pain. They gain expertise in interventional pain management procedures including, but not limited to, cervical, lumbar and caudal epidural steroid injections; sacroiliac joint injections; facet blocks; intercostal nerve blocks; peripheral joint injections; and spinal cord stimulator trials. Our faculty works closely with local neurosurgeons for intrathecal pump medication trials and management. During the year, fellows gain experience in pain management from physiatric, anesthesia and neurology perspectives in both adult and pediatric patients, including end of life care.

To learn more about the Department visit: https://www.evms.edu/education/schools_institutes_centers_departments/physical_medicine_rehabilitation/

Specialty Advising: Physical Med & Rehabilitation

Are you competitive?

Competitiveness: Less competitive
Mean Step 1/2 score: 209/214 (EVMS PMR graduates 2014-18)
Mean Step 1/2 score: 228/241 (AAMC Charting Outcome Data 2020)
Total number of programs: 39 PGY-1 and 66 PGY-2
Interview timing: October-January
Away rotations: Highly Recommended
Research: Not required, but can strengthen application

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=221)	Unmatched (n=25)
Mean number of contiguous ranks	13.5	6.2
Mean USMLE Step 1 score	**228**	**216**
Mean USMLE Step 2 score	**241**	**228**
Mean number of research experiences	3.1	3.0
Mean number of abstracts, presentations, publications	5.5	5.5
Mean number of volunteer experiences	8.3	8.5
Percentage who are AOA members	5.0	0.0
Percentage who have another graduate degree	12.2	18.2

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

PHYSICAL MEDICINE & REHABILITATION Q&A

AWAY ROTATIONS: Are away rotations required? It is highly recommended! **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day – you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. This is particularly helpful for your competitive "reach" programs.

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Three, with at least one from a physiatrist, and if you have a mentor from a different department who knows you well, that's a good letter to include as well. LoRs reflect not only your accomplishments but also your ability to form meaningful relationships with faculty.

M1-M2 checklist:

☑ AAMC Careers in Medicine Assessment
☑ LGM / Shadow clinicians
☑ Attend specialty talk panels, workshops, and other advising sessions
☑ Join student groups
☑ Begin research projects
☑ M1/M2 summer experience

M3-M4 checklist:

☑ Request a PM&R rotation during your **Career Exploration** clerkship.

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/ alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

PM&R ADVISORS: EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

COORDINATOR:
Mykala Sobieck
SobiecMB@evms.edu

PM&R ALUMNI:
alumni@evms.edu

RESOURCES:

Medical Student Roadmap

A Medical Student's Guide to PM&R

PMRTBD[1]: Physical Medicine & Rehabilitation — Category: AMB, Elective

Course Information

Course Director	Eric Stedje-Larsen, MD	**Period Offered**	All Blocks
Location	Naval Medical Center Portsmouth	**Duration**	4 weeks
Main Contact	Rachel Darling usn.hampton-roads.navhospporsva.list.NMCP-MedStudentCoordinator@mail.mil 757-953-0672 or 757-953-3677	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Priority given to Pain Fellow but significant opportunity to evaluate, manage and treat chronic pain patients. Priority given to HPSP students July-October. To request this elective CLICK HERE. Click on "Request for Clerkship/ Interview" in the bottom left corner

Course Description

Flexible inpatient and/or outpatient clinical experiences for adult physical medicine and rehabilitation. Inpatient rehabilitation of stroke, head injury, spinal cord injury, amputee and other orthopedic and neurologic disorders. Outpatient musculoskeletal and pain management including manipulation, acupuncture, epidurals and nerve blocks. Specialty clinics for spinal cord injury, muscular dystrophy, spasticity and cerebral palsy and head injury. Electrodiagnostic evaluation of muscle and nerve disorders.

Course Objectives

1. Exposure to rehabilitation medicine holistic evaluation of patient. Assessment of illnesses and their effects on the basic daily functional activities, mobility, and social roles of individuals and their families.
2. Exposure to prescription of physical therapy, speech therapy, occupational therapy, cognitive therapy, recreational therapy and psychotherapy for inpatients and outpatients with disabling disorders.
3. Exposure to focused musculoskeletal physical examinations and assessments of sports and work related injuries.
4. Exposure to management of acute and chronic pain syndromes including use of medications, exercise, manipulation, modalities, acupuncture and epidurals.
5. Exposure to acute inpatient rehabilitation team management for patients with stroke, head injury, spinal cord injury, cancer, amputations, orthopedic and neurologic injuries.
6. Exposure to vocational rehabilitation and disability assessments.
7. Exposure to electrodiagnostic assessments of nerve entrapments, nerve injuries, radiculopathies, neuropathies, myopathies, and spinal cord disorders.
8. Exposure to prescription of bracing for neck and back injuries, gait disorders and upper extremity disorders.
9. Exposure to prescription of assistive devices for mobility (crutches, walkers, wheelchairs) and activities of daily living (reachers, adaptive utensils, bathroom equipment).
10. Exposure to cardiac, pulmonary and cancer rehabilitation.

At the end of this elective, the student will be able to:

1. Able to assess functional status of individuals with injuries and illnesses.
2. Able to state the roles of the physical therapist, occupational therapist, speech therapist, rehabilitation nurse, recreational therapist, psychologist and social worker on the inpatient rehabilitation team.
3. Able to perform basic musculoskeletal and neurologic physical examinations.
4. Able to state the common indications for electrophysiologic studies.
5. Able to prescribe appropriate assistive gait devices and knowledgeable of when to request evaluation for bracing, prostheses and adaptive equipment.
6. Knowledgeable of potential psychological and social consequences of injuries and illnesses.

Course Specifics

Report First Day	Contact course director	
Student Efforts	10% of time inpatient setting 0% of time in trauma/ICU 90% of time in outpatient setting	36 hours/week of direct patient care 4 hours/week of didactics 0 hours/week of asynchronous activities
Evaluation	100% clinical observation	
Additional Physicians Participating in Teaching	Maureen McClenahan, MD; Victor Rivera, MD	

Site Compliance

Hospital 1: Naval Medical Center Portsmouth

PMRTBD[2]: Physical Medicine & Rehabilitation

Category: AMB, Elective

Course Information

Course Director	Steven Gershon, MD	**Period Offered**	All Blocks
Location	Gershon Pain Specialists 1133 First Colonial Road, Virginia Beach	**Duration**	2 or 4 weeks
		# of Students	1 per block
Main Contact	Erika Dorrman Erika.Dorrman@gershonpain.com	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Outpatient musculoskeletal and interventional pain management including joint injections, Botox, trigger point injections, viscos-supplementation, prolo-therapy, neural prolotherapy, manipulation, facet injections, radio frequency ablations, kyphoplasty, spinal cord stimulator trials, epidurals and nerve blocks. Electrodiagnostic evaluation of muscle and nerve disorders. Gain exposure to any active ongoing research. Additional exposure to bio-identical hormone replacement therapy is an additional offering at this clinic.

Course Objectives

1. Exposure to rehabilitation medicine holistic evaluation of patients.
2. Learn how to perform a comprehensive musculoskeletal exam including, spine, shoulder, elbow, hand wrist, hip, knee ankle and foot.
3. Gain exposure the hands on physical therapy and learn how to write specific PT orders.
4. Exposure to prescription of neuropathic medications and learn how to avoid opioid prescribing
5. Assessments of sports and work related injuries.
6. Exposure to management of acute and chronic pain syndromes including use of medications, exercise, manipulation, modalities, and epidurals.
7. Exposure to vocational rehabilitation and disability assessments.
8. Exposure to electrodiagnostic assessments of nerve entrapments, nerve injuries, radiculopathies, neuropathies, myopathies, and spinal cord disorders.
9. Exposure to prescription of bracing for neck and back injuries, gait disorders and upper extremity disorders.
10. Optional exposure to bio-identical hormone replacement therapy.

At the end of this elective, the student will be able to:

1. Assess functional status of individuals with injuries and illnesses.
2. Perform basic musculoskeletal and neurologic physical examinations.
3. State the common indications for electrophysiologic studies.
4. Form differential diagnosis for all musculoskeletal conditions
5. Understand how EMG's are performed and rationale for ordering them.

Course Specifics

Report First Day	Contact course director	
Student Efforts	0% of time inpatient setting 0% of time in trauma/ICU 100% of time in outpatient setting	40 hours/week of direct patient care 0 hours/week of didactics 0 hours/week of asynchronous activities
Evaluation	100% clinical observation	
Additional Physicians Participating in Teaching	Derrick Wagoner, MD	

Site Compliance

Hospital 1: Non-hospital experience

Department of Psychiatry & Behavioral Sciences

In addition to our essential role in medical student education, the Department of Psychiatry & Behavioral Sciences houses major educational/training programs that include our psychiatry residency, clinical psychology internship, and doctoral clinical psychology program (in collaboration with Old Dominion University and Norfolk State University). In addition, art therapy faculty members hold joint appointments with our department. All of these educational programs are approved and accredited by their respective national organizations (ACGME, APA, and AATA).

To learn more about the Department visit: https://www.evms.edu/psychiatry/

Specialty Advising: Psychiatry

Are you competitive?

Competitiveness: Less competitive
Mean Step 1/2 score: 230/240 (EVMS psychiatry graduates 2014-18)
Mean Step 1/2 score: 227/241 (AAMC Charting Outcome Data 2020)
Total number of programs: 310
Interview timing: October-January
Away rotations: Less important
Research: Less important but varies by program

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=1029)	Unmatched (n=106)
Mean number of contiguous ranks	11.0	5.3
Mean USMLE Step 1 score	**227**	**216**
Mean USMLE Step 2 score	**241**	**229**
Mean number of research experiences	3.1	2.9
Mean number of abstracts, presentations, publications	5.6	4.1
Mean number of volunteer experiences	7.7	6.4
Percentage who are AOA members	6.8	1.9
Percentage who have another graduate degree	17.4	18.1

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

PSYCHIATRY Q&A

AWAY ROTATIONS: Are away rotations required? Not necessarily, but some students find them to be rewarding experiences and an opportunity to explore different regions/programs. **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day – you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. This is particularly helpful for your competitive "reach" programs.

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	**9:5 (14 students)**	**Data Pending**	**1-3 (range)**	**Blocks 2-7**

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Three or four, from psychiatry faculty, including the Chair, and if you have a mentor from a different department who knows you well, that's a good letter to include as well. LoRs reflect not only your accomplishments but also your ability to form meaningful relationships with faculty.

M1-M2 checklist:

☑ AAMC Careers in Medicine Assessment
☑ LGM / Shadow clinicians
☑ Attend specialty talk panels, workshops, and other advising sessions
☑ Join student groups
☑ Begin research projects
☑ M1/M2 summer experience

M3-M4 checklist:

☑ Schedule a meeting with a psychiatry advisor (see table below).

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/ alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

PSYCHIATRY ADVISORS: EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

COORDINATOR:
Margaret Meynardie
MeynarM@EVMS.EDU

PSYCH ALUMNI:
alumni@evms.edu

RESOURCE: Guide to Applying for Psychiatric Residency — American Psychiatric Association

PSY407: Acting Internship in Psychiatry

Category: AI, Elective

Course Information

Course Director(s)	Justin Petri, MD Jessica Mees-Campbell, MD	**Period Offered**	Blocks 1-6
		Duration	4 weeks
Location	Sentara, Norfolk General Hospital	**# of Students**	2 per block
Main Contact	Margaret Meynardie meynarm@evms.edu 757-446-7189	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	Students must be intending to enter Psychiatry Residency upon graduation. Applicants should contact Dr. Petri via email to outline their interest in this elective prior to scheduling.

Course Description

This course is designed for seniors wishing for a sub-internship experience in Inpatient Psychiatry prior to beginning residency in Psychiatry. The purpose of this rotation is to provide increasing amounts of responsibility for treating psychiatric inpatients. The student will act as an intern with primary responsibility for patient care including evaluation and treatment.

Course Objectives

1. To be able to complete a full psychiatric evaluation and interview and determine the initial treatment for a psychiatric inpatient.
2. To be able to evaluate on an emergency or walk-in basis the appropriate intervention and/or treatment needed at that time.
3. To be able to recognize clinical indications for psychotropic agents and recommend several choices in terms of their different risks and benefit to profiles for individual patients.
4. To work as an effective member of the psychiatric inpatient team with primary responsibility for assigned patients.
5. To begin to understand the basics of supportive psychotherapy.
6. To be able to create written documentation, the form of Psychiatric Evaluation/Daily Progress Notes/Discharge Summaries, at the level of a Psychiatry resident.

Course Specifics

Report First Day Sentara, Norfolk General Hospital, 8 North Unit at 8AM

Student Efforts
100% of time inpatient setting
0% of time in trauma/ICU
0% of time in outpatient setting

30 hours/week of direct patient care
2 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

PSY416: Psychiatry

Category: Elective

Course Information

Course Director	Sara Beth Berner-Orcutt, DO	**Period Offered**	All Blocks
Location	Naval Medical Center Portsmouth	**Duration**	4 weeks
Main Contact	Margaret Meynardie meynarm@evms.edu 757-446-7189	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Priority given to HPSP students July-October. To request this elective CLICK HERE. Click on "Request for Clerkship/Interview" in the bottom left corner

Course Description

The rotation is focused on developing an understanding of the major mental illnesses from the biopsychosocial perspective and serving as an introduction to their treatment. The student will work directly with staff and residents to gain exposure to both inpatient and consult liaison psychiatry. The student will also be involved in the unique disposition planning of the military. Additional experiences in outpatient, child/adolescent psychiatry and substance use disorder treatment are available for half day and full day experiences during the rotation.

Course Objectives

1. To advance data gathering talents, and interviewing skills.
2. To practice composing coherent and thoughtful assessments.
3. To develop the habit of reciting concise oral presentations of cases.
4. To advance differential diagnoses abilities, and ideas for treatment.
5. To learn how to address the needs of both the patient and the medical-surgical team.
6. To gain knowledge about the psychiatric needs of medically ill patients.
7. To apply medical, legal, and ethical principles in the psychiatric management of the physically ill patient.

Course Specifics

Report First Day Graduate Medical Education Office, Bldg. #3, 3rd floor at 8:00 am on first day of rotation for check in documents

Student Efforts

100% of time inpatient setting
0% of time in trauma/ICU
0% of time in outpatient setting

40 hours/week of direct patient care
0 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation Based on core competencies endorsed by ACGME:
1. Patient Care
2. Medical Knowledge
3. Practice-based Learning and Improvement
4. Interpersonal and Communication Skills
5. Professionalism

Additional Physicians Participating in Teaching Justine Sprague, MD; Hamid Tavakoli, MD; Steven Miller, MD; Landon Van Dell, MD; Christopher Warner, MD

Site Compliance

Hospital 1: Naval Medical Center Portsmouth

PSY419: Army Psychiatry

Category: AMB, Elective

Course Information

Course Director	Kathleen Stack, MD	**Period Offered**	All Blocks
Location	Ft. Eustis	**Duration**	4 weeks
Main Contact	Margaret Meynardie meynarm@evms.edu 757-446-7189	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Students must have received the COVID vaccine.

Course Description

Military outpatient mental health care is different than general outpatient care in several ways. The population is generally physically healthy and younger. The goal of treatment is not only symptom improvement, but evaluation of fitness for duty. These are administrative evaluations not conducted in the civilian sector. Focus will be on new patient evaluations conducted in the outpatient setting. Will also include some experience with the substance use disorder treatment in the military setting and a portion of the rotation encompasses the Integrated Disability Examination System.

** While under COVID-19 limitations and social distancing requirements, this site can provide direct patient care observation and supervision. For an alternative experience, we can offer a brief elective focused on research and presentation on topics related to Military Health Care Issues. With the goal of submission of a presentation or article for scientific review. This elective can last from 1-4 weeks based on the availability of our staff and the M-4's schedule which would need to be worked out in advance.

Course Objectives

The educational focus of the experience would be to:

1. Become familiar with the lexicon and the unique nuances of Army Service Members Mental Health Care
2. Identify the unique treatment issues present in the active duty population.
3. Obtain a full and accurate history including deployments, Combat Trauma and Other Human Trauma Exposures unique to this patient population and present cases in oral and written form.
4. Learn to evaluate for appropriate level of care within the military system.
5. Utilize the electronic medical record system of the Army and the Behavioral Health Data Platform for self-reported symptoms using well standardized instruments.

Course Specifics

Report First Day Ft. Eustis building 502, 7:30 am

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
100% of time in outpatient setting

0-30 hours/week of direct patient care
10-30 hours/week of didactics
10 hours/week of asynchronous activities

Evaluation Based on core competencies endorsed by ACGME:

1. Patient Care
2. Medical Knowledge
3. Practice-based Learning and Improvement
4. Interpersonal and Communication Skills
5. Professionalism

Additional Health Professionals Participating in Teaching Rosemary Jackson, NP; Elizabeth Calvano, LCSW; Jose Edwin Nieves, MD, DFAPA

Site Compliance

Hospital 1: CAC card and Army training and compliance requirements. Must have a current flu shot and proof thereof. Must have HIPAA training certificate which is current, valid drivers license, proof of insurance and vehicle registration, and current BLS.

PSY421: Emergency Psychiatry

Category: CC, Elective

Course Information

Course Director	James Rapley, MD	**Period Offered**	Blocks 3-9
Location	Sentara, Norfolk General Hospital ER	**Duration**	4 weeks
Main Contact	Margaret Meynardie meynarm@evms.edu 757-446-7189	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

This course is based at the SNGH Emergency Room. The rotation affords students the opportunity to evaluate a broad spectrum of psychiatric patients, many of whom are in acute crisis. Under the supervision of residents and attending staff, students learn the principles and techniques of crisis intervention, rapid psychiatric evaluation, risk assessment, emergency psychopharmacology, and therapeutic approaches used in the acute ambulatory care setting. In addition, students participate in teaching conferences, ER rounds, departmental grand rounds, and morbidity and mortality conferences. Students must give a brief presentation on a relevant clinical topic of their interest during the final week of the rotation. In addition, the student must submit 2 patient consultation notes for review and feedback from the ER attending.

Course Objectives

1. Perform a complete, accurate, rapid initial psychiatric history and mental status examination
2. Recognize common signs and symptoms of medical and psychiatric illness in order to accurately triage and manage patients
3. Distinguish psychiatric presentations from other medical presentations by performing appropriate examinations, ordering diagnostic studies, and consulting with other physicians as needed
4. Formulate treatment plans for continuing care of patients
5. Learn the evidence base for the acute management of psychiatric disorders
6. Learn the evidence base used to guide assessments of risk and disposition decisions
7. Become familiar with forensic issues relevant to psychiatric care in the acute setting

Course Specifics

Report First Day EVMS Hofheimer Hall, Suite 710, 9 AM

Student Efforts

100% of time inpatient setting	20 hours/week of direct patient care
0% of time in trauma/ICU	5 hours/week of didactics
0% of time in outpatient setting	5 hours/week of asynchronous activities

Evaluation 100% clinical observation:

1. Students are evaluated on their ability to complete and present a thorough yet focused consultation, which includes an accurate and descriptive mental status exam.
2. Students are evaluated on their ability to establish rapport with patients, conduct effective interviews, gathers relevant information and present in a cohesive spoken (and written) manner.
3. Students are evaluated on their ability to perform a thorough safety evaluation, including understanding risk factors for potential harm toward self and others.
4. Students are expected to demonstrate basic knowledge of psychiatric disease.
5. Students should participate actively every day, arriving on time and working through the shift.
6. Students should be courteous and respectful to patients, residents, and staff.
7. Students are expected to demonstrate the ability to research a well-defined clinical topic of their choosing and present the relevant facts and theories in a clear, concise, and effective manner.

Additional Physicians Participating in Teaching Other attendings on some afternoons, PGY-2 and PGY-4 residents

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

PSY412: Psychiatry Acting Internship

Category: AI, Elective

Course Information

Course Director	Armin Ansari, MD	**Period Offered**	Blocks 1-4, 7-9
Location	Veteran's Affairs Medical Center, Hampton	**Duration**	4 weeks
Main Contact	Margaret Meynardie meynarm@evms.edu 757-446-7189	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

This course is designed for seniors wishing for a sub-internship experience in Inpatient Psychiatry prior to beginning residency in Psychiatry. However, students entering the Primary Care field, who want further experience recognizing and assessing mental illness should also apply. Cases of greater interest in maximizing the educational objectives and that meet the student interests will be selected. Particular areas of interest can include Substance (alcohol or Illicit Substances), Use Disorders, Neurocognitive Disorders (Dementia), Psychotic Disorders, Mood Disorders, Anxiety Disorders, Post Traumatic Stress Disorder or Personality Disorders. The Biopsychosocial model is used with a crisis intervention approach. Brief stabilization is followed by return to the community or non-acute level of care. Under the psychiatrist's supervision, the student would be responsible for assessing the patient and implementing their own treatment plan. The student would follow the response to treatment, updating or modifying the plan as required.

Course Objectives

Goal: To enhance ones understanding of the nature and treatment of psychiatric illness by treating individuals with addictions and mental illness on an adult patient.

Objectives:

1. The student will master the interviewing skills and complete a detailed psychiatric evaluation that includes the biopsychosocial underpinnings and arriving at a comprehensive treatment plan for the psychiatric inpatient.
2. The student will recognize clinical indications for psychotropic agents and recommend several options in terms of their different risks and benefit to profiles for individual patients.
3. The student will work as an effective member of the psychiatric inpatient team with primary responsibility for assigned patients.
4. The student will begin to understand the basics of supportive psychotherapy.

Course Specifics

Report First Day Psychiatry Office, Bldg. 137 Room B101, Mr. William Bower or Ms. Kelli Jackson for orientation. Call the Psychiatry Office 722-9961 ex 3585 several weeks ahead for required training and computer codes.

Student Efforts

100% of time inpatient setting	40 hours/week of direct patient care
0% of time in trauma/ICU	0 hours/week of didactics
0% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Gregg Briscoe, MD; Charmaine Silva-Gata, MD; Shaista Ashai, MD; Psychiatry residents

Site Compliance

Hospital 1: Veteran's Affairs Medical Center, Hampton

PSY417: Inpatient Geriatric Psychiatry Acting Internship Category: AI, Elective

Course Information

Course Director	James Rapley, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital ER	**Duration**	4 weeks
Main Contact	Margaret Meynardie meynarm@evms.edu 757-446-7189	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	Students must be intending to enter Psychiatry Residency upon graduation.

Course Description

This course is designed for seniors wishing for a sub-internship experience in Inpatient Psychiatry prior to beginning residency in Psychiatry. However, students entering the Primary Care field, who want further experience recognizing and assessing mental illness should also apply. This elective may be beneficial for students interested in Geriatric Medicine, Internal Medicine, Family Medicine, Psychiatry or other fields that would involve the Geriatric population. The student will be exposed to the Senior Treatment Area at Sentara NGH, which is an inpatient Geriatric Psychiatry unit. This unit hosts a population of patients 65 years or older who often present with dementia, delirium psychosis,anxiety and affective states, alongside the physical impairments of various medical conditions, including movement disorders, cardiac andpulmonary conditions and progressive terminal illness. At this location, the student will work actively with the attending physician and will gain experience in diagnostic assessments, behavioral and pharmacologic management of psychiatric illness and the education of patients/caregivers. Treatment modalities include the exposure to Electroconvulsive Therapy which is an effective and safe option for medication-refractory depression, psychosis or catatonia in this population. The student will follow and manage patients daily and play an active role in team presentations. Common topics on this rotation include polypharmacy, ways to minimize confusional states, interdisciplinary management, palliative care, resources in the community and caregiver burden. Efforts will be made to expose the student to topics of interest.

Course Objectives

1. Obtain experience in the inpatient setting with special emphasis on initial assessment, including performing a complete history, mental status exam and diagnoses with a treatment plan.
2. Understand the thorough evaluation process of the older population on the inpatient unit. This would include obtaining a history from several sources, including the patient (who may be a poor historian based on clinical condition), the referring MD, the nursing staff, social workers and family.
3. Gain insight into psychiatric symptoms while using a biological psychological and social format of evaluation.
4. Practice the utilization of various psychiatric modalities, including Pharmacotherapy, Electroconvulsive Therapy, Non-pharmacologic behavioral interventions, and interdisciplinary care.
5. 5. Demonstrate the ability to utilize educational resources in the field of Geriatric Psychiatry in order to make patient care decisions and to educate patients and caregivers.

Course Specifics

Report First Day	Sentara Norfolk General Hospital, 6th Floor, Senior Treatment Area	
Student Efforts	100% of time inpatient setting 0% of time in trauma/ICU 0% of time in outpatient setting	40 hours/week of direct patient care 0 hours/week of didactics 0 hours/week of asynchronous activities
Evaluation	100% clinical observation	
Additional Physicians Participating in Teaching	EVMS Psychiatry Residents	

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

PSY408: Addiction Psychiatry

Category: AMB, Elective

Course Information

Course Director	Jennifer Hanner, MD, MPH	**Period Offered**	Blocks 1, 3, 5, 6, 8, 9
Location	Veterans Affairs Medical Center, Hampton	**Duration**	4 weeks
Main Contact	Margaret Meynardie meynarm@evms.edu 757-446-7189	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

The student will learn about Addiction Psychiatry, a sub-specialty of Psychiatry specializing in the treatment of substance use disorders. The student will participate as a member of a multidisciplinary team and work closely with attending psychiatrists and other treatment team members. The rotation takes place in both a residential treatment setting where patients reside for up to 120 days, as well as an intensive outpatient program setting, where the patients participate in structured daily inidividual and group sessions. The programs utilize a biopsychosocial model of treatment with a strong emphasis on the 12-Step recovery process and motivational interviewing. Students will also learn about medically managed detoxification and medication assisted treatment (MAT) as part of comprehensive treatment.

The student will be expected to actively participate in program activities to include:
(1) individual and group therapy;
(2) community meetings;
(3) family counseling;
(4) didactic therapy;
(5) physical, recreational and occupational therapy;
(6) treatment planning; and
(7) assessment triage.

Course Objectives

1. To learn about and participate in the biopsychosocial assessment of patients with substance use disorders (SUD) along with the intervention strategies used to engage and retain patients in treatment.
2. To learn about the intensive outpatient substance use disorder treatment model and the support systems necessary for successful recovery.
3. To learn about the psychodynamic aspects of substance use disorders through participation in individual and group therapy sessions.
4. To participate in family sessions and learn the family dynamics involved in substance use disorders.
5. To participate in staff in-service education and to learn about the educational components of recovery.
6. To learn about the role of supporting services such as recreational, occupational, and physical therapy in the treatment of patients with substance use diosrders.
7. To learn about medically managed detoxification and medication assisted treatment (MAT).

Course Specifics

Report First Day A110 – Mental Health Admin Office. VA Medical Center, 100 Emancipation Drive, Hampton, VA 23667 (Adjacent to Hampton University, next to VAMC water tower).

Student Efforts

50% of time inpatient setting
0% of time in trauma/ICU
50% of time in outpatient setting

30 hours/week of direct patient care
5 hours/week of didactics
5 hours/week of asynchronous activities

Evaluation Clinical observation, review of case presentations, review of didactic participation

Additional Physicians Participating in Teaching Stephanie Peglow, DO, MPH; Clinical staff of Hampton VAMC Domiciliary Program and Substance Abuse Treatment Program (SATP)

Site Compliance

Hospital 1: Veterans Affairs Medical Center, Hampton

Department of Radiation Oncology and Biophysics

EVMS Radiation Oncology & Biophysics uses the most advanced techniques of delivering therapeutic irradiation for the treatment of malignant disease and some benign conditions. It also has its own physics and radiobiology support for patient care and tumor biology research.

The department's treatment equipment includes linear accelerators, CT simulators and treatment planning computers at all locations. A high dose-rate remote afterloading unit and facilities for intra-operative radiation at Sentara Norfolk General Hospital complement the therapeutic armamentarium. The Cyberknife Stereotactic Robotic linear accelerator is available at Sentara Norfolk General Hospital.

In addition to standard radiation treatments, members of the department provide the latest treatment strategies, including altered fractionation schemes, interstitial implantation, high-dose-remote afterloading by outpatient and inpatient techniques and intraoperative radiation. The department provides a full range of radiation oncology services, including external beam and radioisotope therapy. The department is also involved in institutional multidisciplinary cancer research projects, as well as national projects.

To learn more about the Department visit: https://www.evms.edu/education/schools_institutes_centers_departments/radiation_oncology_biophysics/

Specialty Advising: Radiation Oncology

Are you competitive?

Competitiveness: Highly competitive
Mean Step 1/2 score: 243/255 (AAMC Charting Outcome Data 2020)
Total number of programs: 6 PGY-1 and 82 PGY-2
Interview timing: October-January
Away rotations: Required
Research: Highly important

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=112)	Unmatched (n=1)
Mean number of contiguous ranks	14.0	5.0
Mean USMLE Step 1 score	**243**	**256**
Mean USMLE Step 2 score	**250**	**260**
Mean number of research experiences	5.7	3.0
Mean number of abstracts, presentations, publications	18.3	13.0
Mean number of volunteer experiences	6.6	6.0
Percentage who are AOA members	22.3	100.0
Percentage who have another graduate degree	25.2	0.0

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

RADIATION ONCOLOGY Q&A

AWAY ROTATIONS: Are away rotations required? Yes! Try and secure an away rotation in your first and/or second block of M4. **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day – you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. This is particularly helpful for your competitive "reach" programs.

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Three, two from radiation oncology faculty, and if you have a mentor from a different department who knows you well, that's a good letter to include as well. LoRs reflect not only your accomplishments but also your ability to form meaningful relationships with faculty.

PARALLEL PLANS: This is definitely a specialty I want to pursue but I am worried about its competitiveness. You may be advised to do a parallel plan where you apply for two specialties at once. This will be discussed with your advisor.

M1-M2 checklist:

☑ AAMC Careers in Medicine Assessment
☑ Shadow clinicians
☑ Attend specialty talk panels, workshops, and other advising sessions
☑ Join student groups
☑ Begin research projects
☑ M1/M2 summer experience

M3-M4 checklist:

☑ Request a meeting with Radiation Oncology Chair Mark S. Sinesi, MD, PhD. See specialty advisors list on Blackboard (info below).

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

POC ADVISORS: EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

COORDINATOR:
Dale McLaughlin-Swanner
mclaugdm@evms.edu

ASTRO RESOURCES

ROC401: Clinical Radiation Oncology

Category: Elective

Course Information

Course Director	Mark Sinesi, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital Sentara, Virginia Beach General Hospital Sentara, Princess Anne Hospital	**Duration**	4 weeks
		# of Students	1 per block
Main Contact	Dale McLaughlin-Swanner (757) 388-2076 mclaugdm@evms.edu	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Students will learn biology, physics, and clinical application of radiation in the management of tumors and certain specific non-malignancies. They will be exposed to the use of external beam radiation therapy using 3-D planning, IMRT, using interstitial therapy such as prostate implants. This is accomplished by new patient conferences and examination of patients. The students will learn to evaluate tumor response, acute and late normal tissue reactions to radiation therapy, and the use of chemotherapy with radiation therapy.

Course Objectives

1. Student will develop an understanding of cancer.
2. Student will interact with patients with malignant tumors.
3. Student will become familiar with the different methods of management of patients with malignancy; e.g., surgery, radiotherapy, chemotherapy.
4. To learn the fundamental basis of radiation therapy for malignant tumors.
5. To learn the indications and contraindications in using radiation therapy.

Course Specifics

Report First Day Sentara Norfolk General Hospital, Radiation Oncology, Dale McLaughlin-Swanner, mclaugdm@evms.edu
8:30 a.m.

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
100% of time in outpatient setting

35 hours/week of direct patient care
5 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Mark Shaves, MD; Scott Williams, MD; Lara Bonner Millar, MD; Edwin Crandley, MD; Erik Lappinen, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

Department of Radiology

Explore our Residency here: https://www.evms.edu/education/schools_institutes_centers_departments/radiology/

Specialty Advising: Radiology

Are you competitive?

Competitiveness: Competitive (Highly competitive for Interventional)
Mean Step 1/2 score: 246/236 (EVMS **diagnostic** radiology graduates 2014-18)
Mean Step 1/2 score: See charts below.
Programs: Diagnostic: 33 PGY-1 / 179 PGY-2 | Interventional: 22 PGY-1 / 64 PGY-2
Interview timing: November-January **Research:** Helpful
Away rotations: Recommended on a case-by-case basis (see below)

2020 AAMC Charting Outcome Data DIAGNOSTIC RADIOLOGY Source: Charting Outcomes in the Match	Matched (n=616)	Unmatched (n=26)
Mean number of contiguous ranks	14.0	4.5
Mean USMLE Step 1 score	**241**	**226**
Mean USMLE Step 2 score	**249**	**236**
Mean number of research experiences	3.8	4.5
Mean number of abstracts, presentations, publications	6.4	8.6
Mean number of volunteer experiences	6.9	5.9
Percentage who are AOA members	18.3	3.8
Percentage who have another graduate degree	17.2	21.7

2020 AAMC Charting Outcome Data INTERVENTIONAL RADIOLOGY Source: Charting Outcomes in the Match	Matched (n=109)	Unmatched (n=27)
Mean number of contiguous ranks	7.7	2.8
Mean USMLE Step 1 score	**247**	**240**
Mean USMLE Step 2 score	**255**	**250**
Mean number of research experiences	5.2	4.4
Mean number of abstracts, presentations, publications	10.3	8.0
Mean number of volunteer experiences	7.2	8.3
Percentage who are AOA members	29.4	7.4
Percentage who have another graduate degree	18.6	8.0

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Lester Johnson, MD** — EVMS Radiology Program Director – Radiology research
- **Research@EVMS** — Student Opportunities
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

RADIOLOGY Q&A

AWAY ROTATIONS: Are away rotations required? No, but they may or may not be recommended. This is an individual decision based on your competitiveness and other factors. Set an appointment with the Associate Dean or your specialty advisor to discuss the pros/cons.

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	5:4 (9 students)	Data Pending	1-2 (range)	Blocks 3-4

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Three to four, including one from the Radiology department chair. You can also include a letter from a mentor from a different department who knows you well.

PATHWAYS: Diagnostic vs. Interventional? If you are unsure which to apply for, remember that diagnostic can be a pathway to interventional.

M1-M2 checklist:

- ☑ AAMC Careers in Medicine Assessment
- ☑ LGM / Shadow clinicians
- ☑ Attend specialty presentations
- ☑ Join student groups
- ☑ Begin research projects
- ☑ M1/M2 summer experience
- ☑ Check out the Radiological societies medical student pages
- ☑ Check out forums: SDN; AuntMinnie

M3-M4 checklist:

☑ Request radiology for Career Exploration. If unavailable, this block will have time for shadowing.

☑ Make an appointment with the Radiology Chair to request a letter.

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/ alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

RADIOLOGY ADVISORS: EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

COORDINATOR:
Marleen Viola
violaml@evms.edu

RAD ALUMNI:
alumni@evms.edu

AMSER Resource

RAD400: Radiology

Category: Elective

Course Information

Course Director	Kathy Byun, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital	**Duration**	4 weeks
Main Contact	Marleen Viola, C-TAGME violaml@evms.edu 757-388-1141	**# of Students**	3 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

During the elective students will spend their mornings participating in read-out sessions in the various subspecialties of Diagnostic Radiology, spending 4-5 days in each modality. Time devoted to the sub-specialties can be tailored to the special needs and interests of the participants, such as pediatric radiology, interventional and neuroradiology, etc. (based on availability). Required reading is a basic radiology text that will be distributed to the students the first day of their rotation. Afternoons the students will attend lectures given by both attendings and residents in Radiology. Time will be allowed for self-instruction, so that students may review the ACR teaching files, web-based learning tools and radiologic anatomy. Students are expected to attend all teaching conferences held in the department at 7:00 a.m. and Noon. At the end of the rotation the student will prepare and present a short case presentation. A written and oral exam is given toward the end of the rotation.

Course Objectives

1. Contact with subspecialty areas with emphasis on understanding roles and limitations of various imaging modalities.
2. Understanding the basics of chest, bone and abdominal radiology.
3. Development of approach to evaluation of diagnostic problems with use of imaging procedures.

Course Specifics

Report First Day Sentara Norfolk General Hospital, Radiology Residency Office, Kaufman Entrance

Student Efforts

0% of time inpatient setting	20 hours/week of direct patient care
0% of time in trauma/ICU	10 hours/week of didactics
0% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation 60% written exam; 20% case presentation; 10% oral exam; 10% clinical observation

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

RAD407: Interventional Radiology

Category: Elective

Course Information

Course Director	Harlan Vingan, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital	**Duration**	4 weeks
Main Contact	Marleen Viola, C-TAGME violaml@evms.edu 757-388-1141	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Completion of RAD400

Course Description

The Interventional Radiology (IR) elective offers the 4th year student a 4-week experience in caring for patients undergoing image-guided procedures. A shorter experience is also available for 3rd year students during their elective time. The students will work closely with attendings, residents, and other providers as an integral member of the IR team. Students will learn to perform basic IR procedures including line and drain placements, needle biopsies, vascular & non-vascular interventions, and participate in consults for the IR service.

The student will attend Department of Radiology morning (7AM) and noon didactic conferences. Students are also invited to attend an optional Liver Tumor board that happens every other week. This can be coordinated with the resident on service. The student will also attend Diagnostic Radiology medical student lectures given by residents, unless he/she has already completed RAD400 satisfactorily; if so, the lecture time will be replaced with reading/study time.

Required reading includes select chapters in *The Handbook of Interventional Radiologic Procedures*. Supplemental reading utilizing *Learning Radiology: Recognizing the Basics* is also recommended for those that have not completed the RAD 400 elective. Both texts available through Brickell Library's Online Resources. A written exam will be given at end of rotation and will be based on the required reading.

Course Objectives

1. To learn the fundamentals of image-guided procedures across multiple organ systems and imaging modalities.
2. To correlate radiologic findings with clinical presentations and pathophysiology of disease.
3. To participate in pre, peri, and post-procedure care of IR patients.
4. To develop procedural competency by assisting residents and attendings with image-guided procedures including line and drain placements, needle biopsies, vascular & non-vascular interventions, and participate in consults for the IR service.

Course Specifics

Report First Day Sentara Norfolk General Hospital, Radiology Residency Office, Kaufman Entrance

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
0% of time in outpatient setting

20 hours/week of direct patient care
10 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 2/3 clinical observation, 1/3 written exam

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

RAD408: Diagnostic Radiology Ultrasound

Category: Elective

Course Information

Course Director	Sarah Shaves, MD, FACR Kathy Byun, MD
Location	Sentara, Norfolk General Hospital Children's Hospital of The Kings Daughters Bon Secours, Maryview Bon Secours, DePaul Chesapeake Regional Medical Center
Main Contact	Marleen Viola, C-TAGME violaml@evms.edu 757-388-1141
Period Offered	All Blocks
Duration	Longitudinal for 4 weeks of credit
# of Students	2 per year
Visiting Students	No
Night Call	No
Pre-Requisites/Restrictions	RAD400 pre-requisite. M4 students who have participated in integrated ultrasound curriculum and who will be applying for Radiology Match must also take diagnostic radiology elective. Prospective students must complete an application to be considered for the Honors Ultrasound Program, be planning a career in radiology, and require acceptance by the elective co-directors. Application available from Radiology Residency Administrator.

Course Description

One to two EVMS M4 students planning a career in radiology with special interest in ultrasound will gain advanced understanding of the radiologic subspecialty while working with Radiology attendings and residents through a variety of activities including hands on scanning, developing procedural skills, didactics and self-directed learning.

We expect each student to provide 160 hours of engagement during the course of the year similar to a full four week block rotation (4 weeks x 40 hours = 160 hours) to be completed by March 15th of academic year. Given interviews and away rotations the student may not be able to participate in all course educational offerings. Maximum numbers of hours permitted for each activity will ensure a balanced experience.

Course Objectives

1. Improve knowledge of fundamental physics and knobology of ultrasound
2. Develop an understanding of the strengths and weakness of ultrasound in cross sectional imaging including ACR appropriateness criteria for use of ultrasound
3. Develop language for describing findings on ultrasound
4. Begin to develop the ability to recognize artifacts and abnormalities, strengthen the ability to identify anatomy
5. Improve ultrasound hands on technique
6. Acquire images and dictate ultrasound reports using appropriate macros and standard verbiage

Course Specifics

Report First Day Sentara Norfolk General Hospital, Radiology Residency Office, Kaufman Entrance

Student Efforts

10% of time inpatient setting	2 hours/week of direct patient care
0% of time in trauma/ICU	1 hours/week of didactics
10% of time in outpatient setting	4 hours/week of asynchronous activities

Evaluation Possible grades are Honors, Pass, Fail. Grade based directly upon the student's level of engagement, performance of ultrasounds in clinical spaces and simulation lab, clinical observation, completing independent materials with self-assessment, quality of presentations, preparation of didactics, attendance at didactics, oral exam, and completing all above within the required timeline of the longitudinal elective.

Additional Physicians Participating in Teaching Dina Elgohary, MD; Christopher O'Neill, MD; Robert Post, MD; Prasanti Vachhani, MD; Michele Retrouvey, MD; Radiology residents

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital
Hospital 2: Children's Hospital of The Kings Daughters
Hospital 3: Bon Secours, Maryview
Hospital 4: Bon Secours, DePaul Medical Center
Hospital 5: Chesapeake Regional Medical Center

Department of Surgery

EVMS Medical Group surgeons are nationally and internationally recognized for their expertise and skill and ac-claimed for their clinical research, education of students and residents, and patient care. Many hold national and international positions in their specialty societies and are considered leaders in their fields. Our department specializes in surgical oncology (including breast surgery), acute care surgery (trauma, critical care, and emergency general surgery), minimally invasive surgery, and plastic and reconstructive surgery. Our surgeons are the only Level 1 Trauma surgeons in the Hampton Roads region of Virginia. We also offer several programs for medical students interested in general surgery subspecialties.

As full-time faculty at Eastern Virginia Medical School, our practice has access to research and specialists who form the medical school's faculty as well as the comprehensive resources of an academic medical center. Ground-breaking research, possible only in an academic setting, combined with state-of-the-art patient centered quality care, provides a level of service and knowledge unmatched by other medical service providers.

To learn more about the Department visit https://www.evms.edu/education/schools_institutes_centers_departments/surgery/

Specialty Advising: Surgery

Are you competitive?

Competitiveness: Competitive
Mean Step 1/2 score: 241/248 (EVMS surgery graduates 2014-18)
Mean Step 1/2 score: 237/249 (AAMC Charting Outcome Data 2020)
Total number of programs: 328 (Categorical) | 528 (Prelim, PGY-1 Only)
Interview timing: October-January
Away rotations: Recommended on a case-by-case basis (see below)
Research: Varies by program

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=939)	Unmatched (n=172)
Mean number of contiguous ranks	13.2	6.1
Mean USMLE Step 1 score	**237**	**219**
Mean USMLE Step 2 score	**249**	**234**
Mean number of research experiences	4.0	3.4
Mean number of abstracts, presentations, publications	7.1	4.8
Mean number of volunteer experiences	8.3	8.2
Percentage who are AOA members	18.5	1.7
Percentage who have another graduate degree	22.3	24.4

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

SURGERY Q&A

AWAY ROTATIONS: Are away rotations required? It may be recommended. **Will it help me match into a residency at the away institution?** *From the American College of Surgeons:* You might be able to improve your chances of matching at an institution, particularly one that is geographically or philosophically remote from your medical school, by taking a surgery sub-internship and putting in a stellar performance. The more the surgical faculty get to know you, the better your chance of being selected.

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	**4:5 (9 students)**	**N/A**	**1-2 (range)**	**Blocks 3-4**

M4 SCHEDULING: *From the American College of Surgeons*: Take just enough courses within your specialty choice to make sure that you really want your career to be in that discipline. You should then spend as much time as possible in areas that you will not have further exposure—such as nephrology, cardiology, and radiology.

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Who should I ask? Three or four, from surgery faculty, including the Chair, and if you have a mentor from a different department who knows you well, that's a good letter to include as well. LoRs reflect not only your accomplishments but also your ability to form meaningful relationships with faculty.

M1-M2 checklist:

☑ AAMC Careers in Medicine Assessment
☑ LGM / Shadow clinicians
☑ Attend specialty talk panels, workshops, and other advising sessions
☑ Join student groups
☑ Begin research projects
☑ M1/M2 summer experience

M3-M4 checklist:

☑ Schedule a meeting with Surgery Chair L.D. Britt, MD to formally request a letter. (Email Casey Palmatier for appointments)

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/ alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

SURGERY ADVISORS: EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

COORDINATOR:
Molly Brittain
BrittaMA@EVMS.EDU

SURGERY ALUMNI:
alumni@evms.edu

FASC RESOURCE

SUR402: Clinical Surgery – Professorial Service

Category: AI, Elective

Course Information

Course Director	L.D. Britt, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital	**Duration**	4 weeks
Main Contact	Shawana Futrell FutrelST@EVMS.EDU 757-446-6107	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	Yes; in house call every 3rd to 4th night
		Pre-Requisites/Restrictions	None

Course Description

The Acting Internship (AI) experience is designed to encourage senior medical students to assume patient care responsibilities similar to those of an intern (PGY-1 resident), including call. Exposure to broad range of surgical conditions on the wards, in the operating room and clinics and full participation on the surgery professorial service. The student will participate in weekly teaching rounds with Dr. LD Britt and other faculty small group teaching sessions.

Course Objectives

By the end of this elective, the student should be able to:

1. Understand the physiologic consequences of surgical procedures.
2. Participate in the evaluation and postoperative management of surgical patients on daily morning and evening rounds.
3. Understand the preoperative evaluation and planning that patients require prior to major general and oncologic surgery.
4. Perform at the level of an intern in regards to postoperative decision making and knowledge of disease pathophysiology and surgical management

Course Specifics

Report First Day Sentara Norfolk General Hospital in the 4K Classroom at 6am - Contact Shawana Futrell 2 weeks before to set up a meeting with Dr. Britt

Student Efforts

85% of time inpatient setting
0% of time in trauma/ICU
15% of time in outpatient setting

Varies hours/week of direct patient care
5 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation Clinical observation & literature review

Additional Physicians Participating in Teaching Rebecca Britt, MD; Jay Collins, MD; Jessica Burgess, MD; Michael Martyak, MD; Charles Grigsby, MD; Eric Feliberti, MD; Marybeth Hughes, MD; Rachel Burke, MD; Chief Residents

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

SUR404: Shock/Trauma

Category: AI, CC, Elective

Course Information

Course Director	Jay Collins, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital	**Duration**	4 weeks
Main Contact	Shawana Futrell FutrelST@EVMS.EDU 757-446-6107	**# of Students**	3 per block
		Visiting Students	No
		Night Call	Yes; in-house call every third night
		Pre-Requisites/Restrictions	Blocks 1-4 reserved for students pursuing Surgery.

Course Description

This rotation is designed to introduce the student to the principles of initial assessment, resuscitation and decision making needed to deal with the multiply injured patient. Operative management, care in the intensive care unit and integration of care by multiple services are emphasized on daily rounds. The role of the Trauma Surgeon/team as coordinating physician is demonstrated especially regarding complex multi-system injury patients. The student will be assigned to one of the Trauma Teams. Responsibilities on call include care of all new incoming patients, ongoing care in the Burn Trauma Unit and on the floor service. The student is expected to function as an integral team member under the direction of the Chief Resident and attending staff. Initial reading material will be distributed at the start of the rotation.

Course Objectives

By the end of this elective, the student should be able to:

1. Determine criteria for resuscitation of the trauma patient.
2. Provide a systematic approach to the single and multiple system trauma victim.
3. Know the criteria for determining priority of problems to be managed in the acute trauma patient.
4. Develop an overview of the total care of the trauma victim; pre-hospital, emergency room, critical care, operating phase and rehabilitation.
5. Understand emergency care approach to problems of airway, breathing and circulation.
6. Recognize, understand and treat hypovolemic shock.

Course Specifics

Report First Day Sentara Norfolk General, Burn Trauma Unit, 9th floor of the River Pavilion, 7:00AM

Student Efforts

100% of time inpatient setting
40% of time in trauma/ICU
0% of time in outpatient setting

76 hours/week of direct patient care
4 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Rebecca Britt, MD; Jessica Burgess, MD; Michael Martyak, MD; Charles Grigsby, MD; Alexa Soult, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

SUR411: Surgical and Breast Oncology

Category: Elective

Course Information

Course Director	Eric Feliberti, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital	**Duration**	4 weeks
Main Contact	Shawana Futrell FutrelST@EVMS.EDU 757-446-6107	**# of Students**	2 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	Blocks 1-4 reserved for students pursuing Surgery.

Course Description

This is a senior elective (M4) for students interested in surgical oncology. The focus will be on the evaluation of patients with common malignancies including breast cancer, GI cancers, and melanoma, as well as rare malignancies. A multi-disciplinary approach is emphasized and psychosocial and rehabilitation aspects of care are highlighted. The student will also become familiar with current national research protocols. The student will be assigned to patients for twice daily rounds, procedures and ward work. Students will be involved in tumor conferences by giving patient presentations. Students will also have the opportunity to be 1st assistant in operative procedures performing suturing, knot tying and use of surgical staplers. The student will be expected to give a brief 10-minute talk to the course director each week on a tumor specific evaluation or treatment that the student encountered.

The textbook for the course is "*The MD Anderson Surgical Oncology Handbook*". Online reference for the course is "*The National Comprehensive Cancer Network*" (NCCN).

Course Objectives

1. To learn how to evaluate and stage the patient with cancer.
2. To learn how to diagnose and treat the patient with gastrointestinal cancer, breast cancer, melanoma, and other common cancers, and unusual malignancies.
3. To learn how to develop a treatment plan that is appropriate for the stage of the cancer and the condition of the patient.
4. To observe and/or participate directly with patient care including surgical procedures.
5. To become familiar with the goals, objectives, and requirements of national protocol studies.
6. To develop an appreciation for the complex nature of multi-modality treatment of patients with cancer.

Course Specifics

Report First Day	Call to arrange	
Student Efforts	47% of time inpatient setting 5% of time in trauma/ICU 47% of time in outpatient setting	40 hours/week of direct patient care 4 hours/week of didactics 4 hours/week of asynchronous activities
Evaluation	75% clinical observation; 25% analysis project	
Additional Physicians Participating in Teaching	Marybeth Hughes, MD; Rachel Burke, MD	

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

SUR416: Emergency General Surgery Acting Internship

Category: AI, CC, Elective

Course Information

Course Director	Jay Collins, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital	**Duration**	4 weeks
Main Contact	Shawana Futrell FutrelST@EVMS.EDU 757-446-6107	**# of Students**	1 per block
		Visiting Students	No
		Night Call	Yes; Home call; in-house Friday nights
		Pre-Requisites/Restrictions	Blocks 1-4 reserved for students pursuing Surgery.

Course Description

One M4 year student per rotation will have the opportunity to work on the Emergency General Service (EGS) at Sentara NGH for four weeks. They will be expected to function at the intern level helping the R2 and chief manage the service. They will be expected to see inpatient and ED consults and to round on patients on a daily basis. Call will be every Friday night with early release post call. Students will be off at least one weekend day per week. Students will participate in patient management, placement of central lines, arterial lines, PA catheters, chest tubes, tracheostomies, PEGs and OR cases. Students will participate in all Department of Surgery conferences and didactic sessions during their rotations. Each acting intern will be responsible for organizing one EGS journal club. This elective is ideal for the student interested in surgery or the subspecialties.

Course Objectives

By the end of this elective, the student should be able to:

1. Perform the initial history and evaluation of inpatient consults and emergency room consults for the acute care surgery service
2. Improve surgical technical skills, participating in all procedures and surgeries on the service
3. Participate in the ICU management of critically ill surgical patients
4. Understand and appreciate basic emergency surgical diseases and their management
5. Perform at the level of an intern in regards to postoperative decision making and initial evaluation and management of acute care surgery patients

Course Specifics

Report First Day Sentara Norfolk General, Burn Trauma Unit, 9th floor of the River Pavilion, 7:00AM

Student Efforts

100% of time inpatient setting
10% of time in trauma/ICU
0% of time in outpatient setting

76 hours/week of direct patient care
4 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Rebecca Britt, MD; Jessica Burgess, MD; Michael Martyak, MD; Charles Grigsby, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

SUR414: Clinical Pediatric Surgery

Category: Elective

Course Information

Course Director	Robert E Kelly, Jr, MD	**Period Offered**	All Blocks
Location	Children's Hospital of the King's Daughters	**Duration**	4 weeks
Main Contact	Trisha Arnel Trisha.Arnel@chkd.org (757) 668-7750	**# of Students**	2 per block
		Visiting Students	Yes
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Pediatric surgery offers the opportunity to become familiar with surgical diseases and congenital malformations affecting neonates, infants and children. The rotation also provides an opportunity to learn the surgical indications as well as the pre- and postoperative management of these highly complicated patients.

Course Objectives

Intermediate Objectives:

1. To learn the approach and the assessment of the critically ill neonate and child.
2. To learn the difference and patho-physiology of pediatric surgical diseases.
3. To learn the basics of fluid and electrolyte metabolism in newborn babies.
4. To learn the difference in antibiotic and other medication requirements in babies and children.
5. To learn the assessment of pediatric patients in the outpatient department requiring possible admission for surgery.
6. To learn the preoperative preparation of pediatric patients.
7. To become familiar with the common pediatric surgical operations.
8. To become familiar with the postoperative care of neonates and children.

Enabling Objectives:

1. Recognize those patients who have pediatric surgical diseases, such as appendicitis, diaphragmatic hernias, strangulated hernias, and intestinal atresias.
2. The student should be able to assess the critical nature of the illness and decide whether the patient requires elective surgery or immediate admission with emergency surgery.
3. The student should be able to assess the necessity of preoperative fluid and electrolyte therapy as well as antibiotic therapy.
4. The student should have basic understanding of surgical technique and surgical assistance.
5. The student should be able to provide postoperative care for the patient.
6. The student should be able to anticipate and prevent the common postoperative complications.
7. The student should be familiar with common postoperative practices.

Course Specifics

Report First Day Contact Office (668-9761) at least one week prior to start of rotation.

Student Efforts

80% of time inpatient setting	35 hours/week of direct patient care
10% of time in trauma/ICU	5 hours/week of didactics
10% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation 50% oral exam; 50% clinical observation

Additional Physicians Participating in Teaching CSSG Partners: M. Ann Kuhn, MD; Duane Duke, MD; Robert Obermeyer, MD; Frazier Frantz, MD; Margaret McGuire, MD; Michael Goretsky, MD

Site Compliance

Hospital 1: Children's Hospital of the King's Daughters

SUR417: Clinical Vascular Surgery Acting Internship — Category: AI, Elective

Course Information

Course Director	Jean Panneton, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital	**Duration**	4 weeks
Main Contact	Latisha Yancey yanceyll@evms.edu 757-388-6402	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Blocks 1-6 only for students pursuing General Surgery

Course Description

One M4 year student per rotation will have the opportunity to learn the clinical aspects of Basic Science and Vascular Surgery.

Course Objectives

The student will:

1. Learn the evaluation of the Vascular System
2. Learn basic principles in patient care
3. Learn basic operating room techniques and anatomy by clinical instruction

Course Specifics

Report First Day Contact Ms Yancey 30 days prior to scheduled start

Student Efforts

85% of time inpatient setting
0% of time in trauma/ICU
15% of time in outpatient setting

40 hours/week of direct patient care
3 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Kenneth Cherry, MD; David Dexter, MD; Hosam El Sayed, MD; Jean Panneton, MD; Animesh Rathore, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

SUR418: Vascular Surgery Research

Category: Elective

Course Information

Course Director	Jean Panneton, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital	**Duration**	4 weeks
Main Contact	Latisha Yancey yanceyll@evms.edu 757-388-6402	**# of Students**	1 per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Blocks 1-6 only for students pursuing Vasculary Surgery. Previous involvement in an EVMS IRB approved research project

Course Description

Retrospective Vascular Surgery Clinical Research. Student will have opportunity to work with research fellows and co-author studies.

Course Objectives

The student will:

1. Assist with data collection with the goal of publication
2. Develop an understanding of clinical research and its translation to clinical practice
3. Learn about the various interpretations of data and statistical analysis
4. Learn about different forms of studies and their uses
5. Read current journal articles and determine difference between adequate and inadequate articles

Course Specifics

Report First Day Contact Ms Yancey 30 days prior to scheduled start

Student Efforts

15% of time inpatient setting
0% of time in trauma/ICU
85% of time in outpatient setting

Optional hours/week of direct patient care
3 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 50% clinical observation; 50% scholarly activity rubric

Additional Physicians Participating in Teaching Animesh Rathore, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

SURTBD: Transplant Surgery

Category: Elective

Course Information

Course Director	John O. Colonna, II, MD	**Period Offered**	All Blocks
Location	Sentara Norfolk General Hospital Children's Hospital of the King's Daughters	**Duration**	4 weeks
		# of Students	1 per block
Main Contact	John O. Colonna, II, MD jocolonn@sentara.com 757-274-5451	**Visiting Students**	No
		Night Call	Yes, There is no formal "in-house call", however many transplants and organ recoveries take place after 6PM
		Pre-Requisites/Restrictions	Completion of M3 rotation in Surgery Preference for students interested in General Surgery, Urology or Nephrology

Course Description

This is a four week clerkship on the Sentara Norfolk General, Kidney and Pancreas Transplant Service. Approximately 110 kidney transplants and 2-5 pancreas transplants are performed annually. An additional 5-10 kidney transplants are performed at Children's Hospital of the King's Daughter which is on the same campus. An average of 50 deceased donor organ recoveries are performed annually. Liver transplants are not performed.

The student will work with the two full-time abdominal transplant surgeons and the 3rd or 4th years General Surgery Resident assigned to the Transplant Service. The student will also interact to various extent with other Transplant Team members to include Nephrologists, Infectious Disease, Dietitian, Pharmacologists, Social Workers and Nurse Coordinators. The student will participate all areas of the Transplant Surgery service to include: outpatient evaluation of potential transplant candidates, outpatient surgical follow-up of post-transplant care, organ recovery and transplant operations and in-patient care.

Course Objectives

By the end of the rotation, students will be able to understand surgical and medical care of the renal transplant patient. ASTS Resident Curriculum on-line account will be created for each student and their completion of the assigned modules below confirmed.

- Pharmacology and Immunosuppression – Explain the basic pharmacology (mechanism of action, metabolism, adverse reactions, potential interactions, dosing strategies and target levels) for immunosuppressive agents in current clinical use
- Organ Procurement – Understand the moral, ethical and legal issues and steps involved in determining brain death and in live organ donation. Describe the basic assessment of the quality of a donor organ and its suitability for a given recipient. Outline the basic principles and limits of organ preservation.
- Kidney Transplantation – List the indications for kidney transplantation. Outline the basic principles of donor and recipient selection and deceased donor allocation. Explain the basic immunosuppressive strategies used in kidney transplantation, including induction and maintenance therapy. Understand how to recognize and diagnose renal transplant rejection along with basic histopathology of cellular and antibody mediated rejection and treatment strategies for rejection.

Clinical Responsibilities

- Transplant Procedures: participate in as many kidney and pancreas transplant procedures and transplant-related procedures as possible
- Organ Recoveries: when possible, participate in an organ recovery procedures during rotation
- Daily Multidisciplinary Rounds: M-F @ 12:30 VICU and/or 4th floor River Pavilion – present patients you are following
- Attend Patient Selection Conference: Thursday 4:30 to 5:30, Transplant Conference Room
- Attend Transplant Surgery Clinic: Wednesday and Thursday 1:30 – 3:30.
- Attend Friday morning EVMS General Surgery Conferences

Schedule*

Monday-Wednesday	0800 to 1600	
Thursday:	0900 to 1730	late finish due to Patient Selection Committee meeting
Friday:	1230 to 1600	late start accounts for attendance at General Surgery Educational Conferences
Saturday/Sunday	Student will be notified of any transplants or organ recoveries. Students do not have other clinical responsibilities on weekends	

** Does not include any transplants or organ recoveries which may occur after hours.*

Course Specifics

Report First Day	Time and location will vary. Student will email Dr. Colonna several days before their rotation is to start with contact information and Dr. Colonna will let student know when and where to report the day before the rotation starts.	
Student Efforts	60% of time inpatient setting 10% of time in trauma/ICU 30% of time in outpatient setting	20-30 hours/week of direct patient care 3 hours/week of didactics 10-20 hours/week of asynchronous activities
Evaluation	Students will be evaluated on their patient evaluations and presentations at daily multidisciplinary rounds and their participation in operative procedures.	
Additional Physicians Participating in Teaching	Duncan Yoder, MD; 3rd or 4th year General Surgery Resident on the Transplant Service (either EVMS or Portsmouth Naval Medical Center)	

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital
Hospital 2: CHKD

Division of Orthopedic Surgery

Specialty Advising: Orthopaedic Surgery

Are you competitive?

Competitiveness: Highly competitive
Mean Step 1/2 score: 247/257 (EVMS Ortho graduates 2014-18)
Mean Step 1/2 score: 248/255 (AAMC Charting Outcome Data 2020)
Total number of programs: 203
Interview timing: October-January
Away rotations: Required
Research: High importance

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=645)	Unmatched (n=159)
Mean number of contiguous ranks	12.3	7.9
Mean USMLE Step 1 score	**248**	**239**
Mean USMLE Step 2 score	**255**	**246**
Mean number of research experiences	5.4	5.7
Mean number of abstracts, presentations, publications	14.3	14.2
Mean number of volunteer experiences	8.0	7.6
Percentage who are AOA members	40.3	11.3
Percentage who have another graduate degree	16.7	25.2

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

ORTHOPAEDIC SURGERY Q&A

AWAY ROTATIONS: Are away rotations required? Yes! Try and secure an away rotation in your first and/or second block of M4. **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day – you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. This is particularly helpful for your competitive "reach" programs.

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	**4:0 (4 students)**	**Data pending**	**4 (range)**	**Blocks 1-4**

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Three to four. **Who should I ask?** Once your application is selected for review, this is one of the most important parts of your application. Any orthopaedic attending that knows you well and can attest to your abilities can write a letter. Remember, a strong letter from a lesser known surgeon is better than a weak letter from a big name.

M1-M2 checklist:

☑ AAMC Careers in Medicine Assessment
☑ Shadow clinicians
☑ Attend specialty talk panels, workshops, and other advising sessions
☑ Join student groups
☑ Begin research projects
☑ M1/M2 summer experience

M3-M4 checklist:

☑ Request an ortho rotation during your Career Exploration clerkship.

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

ORTHOPEDIC SURGERY ADVISORS: EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

ORTHO ALUMNI:
alumni@evms.edu

AAOS Resource

ORT403: Orthopedics

Category: AMB, Elective

Course Information

Course Director	Thomas Douglas, MD	**Period Offered**	Blocks 5-11
Location	Naval Medical Center Portsmouth, Bone & Joint Sports Medicine Institute (outpatient)	**Duration**	4 weeks
		# of Students	2 per block
Main Contact	Rachel Darling usn.hampton-roads.navhospporsva.list.NMCP-MedStudentCoordinator@mail.mil 757-953-0672 or 757-953-3677	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	Priority given to HPSP students July-October. To request this elective CLICK HERE. Click on "Request for Clerkship/Interview" in the bottom left corner

Course Description

Text to serve as basic reference while on rotation, (1) *Essentials of Orthopaedic Surgery*, by Sam Weisel, published by Saunders. Rotator will spend 0715 to 0800 in morning conference, and 0800 to 1600 in clinical setting, which will primarily be outpatient clinic, but can be assigned to a surgical team if desired and available (i.e., total joint, sports medicine, hand, trauma, etc.)

A comprehensive curriculum of lectures intended for non-orthopedists will be given during the course of the month. (2) *Physical Examination of the Spine and Extremities* by Stanley Hoppenfeld (Appleton-Century-Crofts).

Course Objectives

1. Demonstrate the capability to:
    a. Take a thorough history of musculoskeletal problems
    b. Perform adequate physical examination of the spine and extremities
    c. Splint and cast basic orthopedic injuries
    d. Read basic X-rays of the musculoskeletal system
2. To become familiar with clinical tests used in orthopedics.

Course Specifics

Report First Day Graduate Medical Education Office, Bldg. #3, 3rd floor at 8:00 a.m. on first day of rotation for check-in documents, before proceeding to Orthopedic GME Coordinator, Kelley Jacobson, Building 3, 5th floor.

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
100% of time in outpatient setting

50 hours/week of direct patient care
8 hours/week of didactics
5 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Naval Medical Center Portsmouth – outpatient

ORT409: Orthopedic Surgery & Sports Medicine — Category: AMB, Elective

Course Information

Course Director	Boyd Haynes, MD	**Period Offered**	All Blocks
Location	Orthopaedic & Spine Center 250 Nat Turner Boulevard Newport News, VA 23606	**Duration**	4 weeks
		# of Students	1 per block
		Visiting Students	No
Main Contact	Patsy Murabito pmurabito@osc-ortho.com 757-596-1900	**Night Call**	No
		Pre-Requisites/Restrictions	None

Course Description

Student will follow private practice orthopedist during office hours. Student will have ample time for their own studying and reading. Student should come away with a basic understanding of orthopedic surgery and clinical and historical evaluation of the orthopedic patient.

Course Objectives

1. Demonstrate the capability to:
    a. Take a thorough history of musculoskeletal problems
    b. Perform adequate physical examination of the spine and extremities
    c. Understand basic orthopedic injuries
    d. Read basic X-rays of the musculoskeletal system
    e. Understand the business and efficiency of Medical Field, EHR, Staffing, etc.
2. To become familiar with clinical tests used in orthopedics.

Course Specifics

Report First Day 8:00 am at Orthopaedic & Spine Center, 250 Nat Turner Boulevard, Newport News, VA 23606

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
100% of time in outpatient setting

12 hours/week of direct patient care
12 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Bon Secours, Mary Immaculate Hospital

ORT411: Orthopedic Surgery & Sports Medicine — Category: AMB, Elective

Course Information

Course Director	Kevin F. Bonner, MD, FAAOS	**Period Offered**	All Blocks
Location	Sentara, Leigh Hospital Leigh Orthopedic Surgery Center Jordan-Young Institute, Virginia Beach	**Duration**	2 or 4 weeks
		# of Students	1 per block
		Visiting Students	No
Main Contact	Allison Hetrick ahetrick@jordan-younginstitute.com 757-502-8546 or 757-502-8561	**Night Call**	No
		Pre-Requisites/Restrictions	Only open to students planning to pursue orthopedics

Course Description

Student will follow private practice orthopedist during office hours, surgery and rounds. Students will be able to see how to integrate research into a private practice setting. Student will have ample time for their own studying and reading. Student should come away with a basic understanding of orthopedic surgery and clinical evaluation of the orthopedic patient. This course is focused on shoulder and knee surgery but students will also gain a significant experience in treating athletes and sports injuries.

Course Objectives

1. Demonstrate the capability to:
    a. Take a thorough history of musculoskeletal problems
    b. Perform adequate physical examination of the spine and extremities
    c. Understand basic orthopedic injuries
    d. Read basic X-rays of the musculoskeletal system
2. To become familiar with clinical tests used in orthopedics.

Course Specifics

Report First Day Jordan-Young Institute, 5716 Cleveland Street, Suite 200, Virginia Beach, VA 23462

Student Efforts

50% of time inpatient setting	40 hours/week of direct patient care
0% of time in trauma/ICU	0-1 hours/week of didactics
50% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Supervision may also occur with any of the other surgeons who are participating with the student's rotation.

Site Compliance

Hospital 1: Sentara, Leigh Hospital

ORT413: Orthopedic Trauma Surgery

Category: AI, CC, Elective

Course Information

Course Director	Richard J Myers, MD	**Period Offered**	All Blocks
Location	Sentara Norfolk General Hospital & Clinics	**Duration**	4 weeks
Main Contact	Rebecca Hastings hastinrs@evms.edu 757-446-7111	**# of Students**	1 per block
		Visiting Students	Yes
		Night Call	Yes
		Pre-Requisites/Restrictions	None

Course Description

Student to participate in a busy orthopaedic trauma surgery service at Sentara Norfolk General Hospital, the region's level 1 trauma center. The student will participate in insured and indigent clinic experiences, inpatient rounding, and major open orthopaedic surgery in the operating room. The student will integrate into our team that includes an orthopaedic trauma attending surgeon, advance practice clinician, orthopaedic chief resident, and usually a first year emergency medicine resident. Night call will be negotiable and consistent with the educational goals of the learner.

Course Objectives

Part 1: Orthopaedic History and Exam Skills

- Develop and demonstrate the ability to obtain a basic history and orthopaedic specific history.
- Apply and understand orthopaedic relevant physical exam and joint specific examination tests.
- Enhance problem-solving skills in the daily evaluation and management of assigned patients.

Part 2: Orthopaedic Trauma Team Skills

- Effectively integrate him/herself into the orthopaedic trauma team as a contributing member.
- Demonstrate teamwork and communication skills with nurses, therapists, case managers and other clinicians on his/her patients.
- Successfully complete in-house call responsibilities similar to or at the level of an intern.
- Demonstrate effective oral and written communication skills related to the multiservice and multisystem care of the injured patient with isolated or multisystem orthopaedic injuries.

Part 3: Oral Communication Skills

- The student will present a brief review of a case encountered during the rotation and perform a supplementary literature on the relevant topic in orthopaedic trauma.

Course Specifics

Report First Day Sentara Orthopaedic Trauma Specialists, Norfolk General Hospital, 600 Gresham Dr., Suite 204

Student Efforts

75% of time inpatient setting
5% of time in trauma/ICU
20% of time in outpatient setting

40-60 hours/week of direct patient care
1-5 hours/week of didactics
TBD hours/week of asynchronous activities

Evaluation 90% clinical observation, 10% oral presentation

Additional Physicians Participating in Teaching Suneel Bhat, MD; Dirk S. Proffer, MD; Harry J. Molligan IV, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital

Division of Plastic Surgery

Specialty Advising: Plastic Surgery

Are you competitive?

Competitiveness: Highly competitive
Mean Step 1/2 score: 243/261 (EVMS plastic surgery graduates 2014-18)
Mean Step 1/2 score: 249/256 (AAMC Charting Outcome Data 2020)
Total number of programs: 84
Interview timing: October-January
Away rotations: Highly Recommended
Research: High importance

2020 AAMC Charting Outcome Data Source: Charting Outcomes in the Match	Matched (n=158)	Unmatched (n=56)
Mean number of contiguous ranks	13.7	7.3
Mean USMLE Step 1 score	**249**	**245**
Mean USMLE Step 2 score	**256**	**250**
Mean number of research experiences	5.9	5.9
Mean number of abstracts, presentations, publications	19.1	11.6
Mean number of volunteer experiences	8.7	7.4
Percentage who are AOA members	43.0	19.6
Percentage who have another graduate degree	22.2	28.8

You have the data. *Now let's break it down.*

How do I get started if I want to present/publish my research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

Mean number of contiguous ranks means what exactly? The number of programs that a student interviewed, then subsequently ranked in the Rank Order List.

PLASTIC SURGERY Q&A

AWAY ROTATIONS: Are away rotations required? It is highly recommended! Try and secure an away rotation in your first and/or second block of M4. **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day – you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. This is particularly helpful for your competitive "reach" programs.

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Three to four. **Who should I ask?** Make sure your letters come from plastic surgeons that can attest to your clinical abilities. Ask preceptors from your rotations at EVMS as well as your away rotations. Letters of Recommendation are ranked as the highest factor for plastic surgery residency program directors.

PARALLEL PLANS: This is definitely a specialty I want to pursue but I am worried about its competitiveness. You may be advised to do a parallel plan where you apply for two specialties at once. This will be discussed with your advisor.

M1-M2 checklist:

☑ AAMC Careers in Medicine Assessment
☑ LGM / Shadow clinicians
☑ Attend specialty talk panels, workshops, and other advising sessions
☑ Join student groups
☑ Begin research projects
☑ M1/M2 summer experience

M3-M4 checklist:

☑ Request an plastic surgery rotation during your Career Exploration clerkship.

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

PLASTIC SURGERY ADVISORS: EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

PLS ALUMNI:
alumni@evms.edu

RESOURCE:
http://www.plasticsmatchinsider.com/

PLS403: Plastic Surgery/Reconstructive Surgery Category: AMB, Elective

Course Information

Course Director	Lambros Viennas, MD	**Period Offered**	All Blocks
Location	Sentara, Norfolk General Hospital Sentara, Leigh Memorial Hospital Princess Anne Ambulatory Surgery Ctr Hofheimer Hall, 6th floor Dept of Surgery Princess Anne EVMS Office CHKD	**Duration**	4 weeks
		# of Students	1 per block
		Visiting Students	No
		Night Call	No
Main Contact	Shawana Futrell FutrelST@EVMS.EDU 757-446-6107	**Pre-Requisites/Restrictions**	None

Course Description

Students will rotate through the Plastic Surgery Service, engaging in contact with patients and assisting in surgery; attending lectures, conferences and suture workshops. Exposure to all aspects of reconstructive and aesthetic surgery; including breast, facial, pediatric and general plastic surgery procedures. Participation in a research project or preparation of an in-depth essay or paper on a particular subject in plastic surgery.

Course Objectives

To understand the scope and practice of plastic surgery; the diagnosis of specific problems, the medical and surgical management of plastic surgery patients (including pre and post-operative care), and an understanding of long-term outcomes of both functional and aesthetic procedures. This will be achieved through:

1. Exposure to and participation in the academic practices of full-time department members, as well as exposure to private plastic surgery practices.
2. Didactic lectures and conferences.
3. Directed reading of plastic surgery texts, journals and reviews of specific videotapes.

Course Specifics

Report First Day EVMS Surgery, Division of Plastic and Cosmetic Surgery; Contact Shawana Futrell for reporting details 757-446-6107 or FutrelST@EVMS.EDU

Student Efforts

20% of time inpatient setting	40 hours/week of direct patient care
0% of time in trauma/ICU	5 hours/week of didactics
80% of time in outpatient setting	5 hours/week of asynchronous activities

Evaluation Clinical assessment, essay, or research project

Additional Physicians Participating in Teaching Lawrence Cohen, MD; George Hoerr, MD; Jesus Inciong, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital
Hospital 2: Sentara, Leigh Memorial Hospital
Hospital 3: CHKD

Department of Urology

The Department of Urology at Eastern Virginia Medical School is committed to supporting the mission of the medical school to provide the highest caliber of specialized urologic care in the region, to provide excellence in education, and to provide advance knowledge through research.

Educational Programs

Medical School
The Department actively participates in the undergraduate educational programs for medical students. A fourth-year clerkship (sub-internship) is offered as an elective.

Residency Education
Our residency produces outstanding urologists, who have maintained a 100% American Board of Urology pass rate for more than 20 years and regularly finish well above the 50% of index procedures required for certification. We offer unique learning opportunities for residents, from collaboration with fellowship-trained faculty on research to international mission trips in more than five countries.

Handle cases that match your experience and enjoy the flexibility to focus on your interests as you train for a career in urology in a variety of community hospitals and outpatient practices.

Postgraduate Education
Community physicians are invited to participate in continuing medical education in urology via weekly grand rounds, guest lectureships, and a monthly journal club. The Department frequently sponsors continuing medical education seminars for area physicians of all specialties.

During the academic year, the Department also hosts many visiting physicians from both the U.S. and many other countries.

Research
Our researchers, residents and fellows publish and present regularly, and our research is making important advances possible in Urology. Proteomics researchers with the Leroy T. Canoles Jr. Cancer Research Center have collaborated with our urologists to identify a liquid-biopsy biomarker for aggressive prostate cancer, which will help with cancer treatment.

Our investigators partner with departments across EVMS including Microbiology and Molecular Cell Biology, as well as with regional cancer research groups, foundations and companies, to conduct clinical trials and advance the field of urological medicine.

To learn more about the Department visit: https://www.evms.edu/education/schools_institutes_centers_departments/urology/

Specialty Advising: Urology

Are you competitive?

Competitiveness: Highly competitive
Interview timing: October-December (AUA / Early Match)
Away rotations: Highly Recommended **Research:** Important

Programs	Jan 2020
Positions Offered	354
Positions Filled	353
Applicants	
Registrations	484
Lists Submitted	441
Ranked by Programs	430
Matched	353
Not Matched	88
Averages and Match Results	
Average Applications	74
Average Interviews Taken by Applicants	13
Average Offers	13
US Seniors Matched	83%
Previous U.S. Graduates Matched	78%
Women Matched	86%

STEP1: Here is a rough breakdown of scores, from urologymatch.com:

- **< 215** - seek advice on whether you have a reasonable chance at matching; people do match with these scores, but only with a very solid application.
- **215-230** - your score may hurt you in the eyes of many programs, but many people match every year with these scores.
- **230-240** - these are solid scores and you should certainly do fine. If you are aiming for top-tier programs, however, this is hopefully not the strongest part of your application.
- **240-250** - you are in great shape.
- >**250** - your board score is outstanding and will stand out.

UROLOGY Q&A

AWAY ROTATIONS: Are away rotations required? It is highly recommended! Try and secure an away rotation in your first and/or second block of M4. **Will it help me match into a residency at the away institution?** Possibly. An away rotation is a four-week interview so you must be "on it" every day – you can make a negative impression as easily as a positive one. It will, however, give you a sense of the program and fit, and can set you apart from other applicants. This is particularly helpful for your competitive "reach" programs.

ALUMNI DATA	PARTICIPANTS (AWAYS: NO AWAYS)	AVERAGE AWAYS APPLIED TO	AWAYS COMPLETED	TYPICAL BLOCKS
MD2020	**3:0 (3 students)**	**Data pending**	**2 (range)**	**Blocks 2-4**

LETTERS OF RECOMMENDATION: How many letters or recommendation should I get? Three. **Who should I ask?** Make sure your letters come from urologists that can attest to your clinical abilities. Ask preceptors from your rotations at EVMS as well as your away rotations. Set an appointment with Urology Chair Dr. Kurt McCammon to formally request a letter.

RESEARCH: Who can I contact to get involved in research?

- **David Mu, PhD** — Director or Medical Student Research Opportunities
- **Alexandra Leader, MD, MPH** — Director of Global Health
- **Research@EVMS** — Student Opportunities
- **ERO Database** — Login to MyPortal to access
- **CiM Clinical and Research** — Opportunities Login to AAMC to access

M1-M2 checklist:

☑ AAMC Careers in Medicine Assessment
☑ LGM / Shadow clinicians
☑ Attend specialty talk panels, workshops, and other advising sessions
☑ Join student groups
☑ Begin research projects
☑ M1/M2 summer experience

M3-M4 checklist:

☑ Request a urology rotation during your Career Exploration clerkship

☑ July-Aug (M4): Schedule a meeting with the Vice Dean or Assoc. Dean of Clinical Education to go over **ERAS materials**.

☑ Participate in **mock interviews**.

☑ Research **residency programs** by searching online (i.e. FREIDA, Texas Star, etc.) and speaking to graduating seniors/ alumni.

☑ Review your **MSPE** draft (Noteworthy Characteristics; Review your academic history/academic progress for accuracy and consistency with your transcript; and review your clerkship evaluations)

☑ Start scheduling **interviews** and make travel arrangements.

☑ Submit **Rank Order List**. An ROL advising event will be held Jan-Feb.

Specialty advisors:

UROLOGY ADVISORS: EVMS faculty members have volunteered to advise students pursuing their specialties.

Go to Career Advising Blackboard >> Specialties >> Specialty Advisor List for contact info

URO COORDINATOR:
Lynn Vass
vasslm@evms.edu

URO ALUMNI:
alumni@evms.edu

RESOURCES:
https://www.auanet.org
https://www.urologymatch.com

URO400: Urology

Category: Elective

Course Information

Course Director	Kurt McCammon, MD	**Period Offered**	All Blocks
Location	Urology of Virginia 225 Clearfield Ave Virginia Beach VA 23462 Sentara, Norfolk General Hospital Children's Hospital of The Kings Daughters	**Duration**	4 weeks
		# of Students	3 per block
		Visiting Students	No
		Night Call	No
Main Contact	Lynn Vass vasslm@evms.edu 757-452-3459	**Pre-Requisites/Restrictions**	None

Course Description

This course includes experience with the broad, overall concepts of urologic disease and the practice of urology in the hospital and office setting. There will be an emphasis on the basic diagnostic procedures and treatment of patients with disease of the genitourinary organ system, male and female. Students will participate in assigned readings, diagnostic procedures, assist at surgery, and present patients at conferences.

Students will become familiar with the American Urological Association (AUA) website - National Medical Student Curriculum, specifically the Core Content (all 9 areas) and Uroradiology cases (all 6 cases).

Course Objectives

By the end of the elective, the student should be able to:

1. Participate in the care and evaluation of patients with urologic disease.
2. Learn the basic of urologic diagnosis, the signs and symptoms of urologic disease, the perils in reading GU x-rays, and the surgical treatment available for difficult urologic problems.
3. Learn the pathophysiology of diseases involving the adrenal gland kidney, ureter, bladder, prostate, urethra testis, scrotum and the surgical treatment for curing or reconstructing these diseased organs.

Course Specifics

Report First Day 6:45 AM Rads Conference, Location varies (confirm with department)

Student Efforts

90% of time inpatient setting
0% of time in trauma/ICU
10% of time in outpatient setting

50 hours/week of direct patient care
3 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation 100% clinical observation

Additional Physicians Participating in Teaching Victor Brugh, MD; Jessica DeLong, MD; Robert Given, MD; Charles Horton, MD; Douglas Kelly, MD; John Malcolm, MD; Jyoti Upadhyay, MD; Ramon Virasoro, MD; Michael Williams, MD; Louis Wojcik, MD; Kaitlan Cobb, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital
Hospital 2: Children's Hospital of The Kings Daughters

URO404: Urology Acting Internship

Category: AI, Elective

Course Information

Course Director	Kurt McCammon, MD	**Period Offered**	All Blocks
Location	Urology of Virginia 225 Clearfield Ave Virginia Beach VA 23462 Sentara, Norfolk General Hospital Children's Hospital of The Kings Daughters	**Duration**	4 weeks
		# of Students	3 per block
		Visiting Students	No
		Night Call	No nights, weekend day call only
Main Contact	Lynn Vass vasslm@evms.edu 757-452-3459	**Pre-Requisites/Restrictions**	None

Course Description

The Acting Internship (AI) experience is designed to encourage senior medical students to assume patient care responsibilities similar to those of an intern (PGY-1 resident), including call. This rotation will be offered to M4 students who are interested in a career in Urology. They will be expected to function at the intern level, helping the residents and chief manage the service. They will be expected to see inpatient and ED consults and to round on patients on a daily basis. Students will develop a broad knowledge base of the concepts of urologic disease and the practice of Urology in the hospital and outpatient setting. Emphasis will be placed on diagnostic procedures and treatment of patients with disease of the genitourinary organ system, male and female. Students will be responsible for assigned readings, carrying out diagnostic procedures, assist at surgery, and attending all departmental conferences where they will be expected to actively participate.

Students will become familiar with the American Urological Association (AUA) website - National Medical Student Curriculum, specifically the Core Content (all 9 areas) and Uroradiology cases (all 6 cases).

Course Objectives

By the end of the elective, the student should be able to:

1. Participate in the care and evaluation of patients with urological disease.
2. Know the basics of urologic diagnosis, the signs and symptoms of urologic disease, the perils of reading GU imaging studies, and the surgical treatments available for difficult urologic problems.
3. Know the pathophysiology of diseases involving the adrenal gland, kidney, ureter, bladder, prostate, urethra, scrotum and the surgical treatment for curing or reconstructing these diseased organs.

Course Specifics

Report First Day 6:45 AM Rads Conference, Location varies (confirm with department)

Student Efforts

90% of time inpatient setting
0% of time in trauma/ICU
10% of time in outpatient setting

50 hours/week of direct patient care
3 hours/week of didactics
0 hours/week of asynchronous activities

Evaluation Patient Contact: 90% Inpatient, 10% Outpatient

Additional Physicians Participating in Teaching Victor Brugh, MD; Jessica DeLong, MD; Robert Given, MD; Charles Horton, MD; Douglas Kelly, MD; Jack Lambert, MD; John Malcolm, MD; Jeremy Tonkin, MD; Jyoti Upadhyay, MD; Ramon Virasoro, MD; Michael Williams, MD; Louis Wojcik, MD

Site Compliance

Hospital 1: Sentara, Norfolk General Hospital
Hospital 2: Children's Hospital of The Kings Daughters

Basic Science Electives

ANT408: Advanced Clinical Anatomy & Education

Category: Elective

Course Information

Course Director	Alberto Musto, MD, PhD	**Period Offered**	Continuously
Location	2073 Human Anatomical Lab, Lewis Hall	**Duration**	2 or 4 weeks
Main Contact	Laurie Wellman, PhD 757-446-7366 wellmall@evms.edu	**# of Students**	2 students per block
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Completion of pre-clerkship curriculum.

Course Description

The Advanced Clinical Anatomy & Education elective is designed to allow students the opportunity to revisit a region of anatomy that will be relevant to their future career plans while expanding their teaching knowledge and skills. Acceptance for the elective and project plans will be based on the SOM and SHP courses in session at that time and number of donors available.

Course Objectives

3. With faculty guidance, web resources and independent study, students will revisit an area of career interest in anatomy.
4. With faculty guidance, students will be required to prepare an educationally valuable dissection of their region of interest. They will also present their dissection, emphasizing clinicopathologic correlation, to departmental faculty.

Course Specifics

Report First Day

At 9 am on the first day of the block rotation you must report to the Anatomy Lab where Dr. Musto or the Lab Coordinator will orient you to the anatomy lab and current resources and operations. Following this period there will be a debriefing of rotation expectations and remaining questions will be addressed. We are aware that some may have heavy interviewing schedules during the rotation and we will do our best to accommodate your needs. Please be prepared to provide a schedule of interviewing dates and know that time lost can and must be made up.

Student Efforts

0% of time inpatient setting
0% of time in trauma/ICU
0% of time in outpatient setting

0 hours/week of direct patient care
10 hours/week of didactics
30 hours/week of asynchronous activities

Evaluation

Prosection and student presentation will be graded by faculty as pass/fail.

Additional Health Professionals Participating in Teaching

Lane Fortney, MS; Carrie Elzie, PhD; Richard Gonzalez, PhD; Paul Aravich, PhD

Site Compliance

Hospital 1: Non-hospital experience

Interdisciplinary Electives

ITD426: Transition into Practice (TIPS) for Residency — Category: Required

Course Information

Course Director	A. Brooke Hooper, MD Erika Rhone, MD	**Period Offered**	Block 10
		Duration	4 weeks
Location	EVMS	**# of Students**	150 per block
Main Contact	A. Brooke Hooper, MD hooperab@evms.edu 757-446-7439	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	Match commitment to a PGY-1 residency program

Course Description

Transition into Practice Series (TIPS): Residency Readiness is a required course that addresses the core competencies graduating medical students should possess prior to starting internship. TIPS is divided into 2 components: 1. Entrustable Professional Activities which offers in-depth exposure to high-yield topics pertinent to a student's chosen field and 2. Electives aimed to offer content highlighting topics pertinent to all specialties. This course will primarily be delivered virtually, with in-person skills-based sessions available (ultrasound, basic and specialty-specific procedures), and call/code management simulations.

Entrustable Professional Activities	Electives
1. Gather a history and perform a PE	1. Understand Malpractice
2. Prioritize a differential diagnosis following a clinical encounter	2. Wellness in Medicine
3. Recommend and interpret common diagnostic and screening tests	3. Career Pathways
4. Enter and discuss orders and prescriptions	4. Cultural Humility
5. Document a clinical encounter in the patient record	5. Quality improvement and Population Health
6. Provide an oral presentation of a clinical encounter	6. Ethics
7. Form clinical questions and retrieve evidence to advance patient care	7. Risk Management
8. Give or receive a patient handover to transition care responsibility	8. Financial Planning
9. Collaborate as a member of an interprofessional team	9. Residents as Teachers
10. Recognize a patient requiring urgent or emergent care and initiate evaluation/management	10. Healthcare Delivery: Insurance, coding, and billing
11. Obtain informed consent for tests and/or procedures	11. Communication Techniques
12. Perform general procedures of a physician	12. Opioid management and Opioid Misuse
13. Identify system failures and contribute to a culture of safety and improvement	13. Value-Based Care
	14. Systemic Racism and Health Care

Course Objectives

1. Alleviate student anxiety regarding transition from medical school to residency.
2. Increase student confidence in both clinical and technical skills expected on Day 1 of residency.
3. Review core clinical concepts specific to chosen specialty.
4. Offer an integrated active multidisciplinary learning experience.
5. Practice and receive feedback on technical and clinical skills specific to chosen subspecialty.
6. Engage in discussion and reflect upon personal and professional topics likely to be encountered during residency.

Course Specifics

Report First Day Students will be sent the sub-specialty week dates in October of their M4 year for their planning purposes. The Professional Development Week is required for all students the last week of the course.

Student Efforts

0% of time inpatient setting	0 hours/week of direct patient care
0% of time in trauma/ICU	4 hours/week of didactics
0% of time in outpatient setting	14 hours/week of asynchronous activities

Evaluation Completion of course requirements and assignments

Additional Physicians Participating in Teaching Invited faculty and resident session leaders from multiple departments, teaching is supervised by the course directors (full list available on Blackboard course site)

Site Compliance

Hospital 1: Non-hospital experience

ITD422: Clinical Skills Facilitator

Category: Elective

Course Information

Course Director	Erika Rhone, MD	**Period Offered**	July-April
Location	EVMS	**Duration**	Longitudinal for 2 weeks credit
Main Contact	Erika Rhone, MD rhoneet@evms.edu 757-446-7266	**# of Students**	28-30 (including substitute facilitators)
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Brief meeting with Dr. Rhone to discuss objectives and personal goals

Course Description

Option 1: The Junior Facilitator experience allows fourth-year medical students the opportunity to assist EVMS faculty in leading Clinical Skills sessions for first and second-year students. This is a longitudinal experience that begins with training concerning facilitating small group learning, giving strategic feedback, and evaluating learner performance. The participant will assist faculty in leading small group discussions, overseeing simulated patient interviews relevant to medical history and physical exam topics and guiding discussions about medical decision making. Student facilitators will also have an opportunity to lead and participate in other small group venues offered throughout the year.

Option 2: Near Peer facilitators will be paired with M2 students and will meet for at least 5 four hour sessions during the course of the academic year. These sessions can be coorinated to allow for flexibility in both students' schedules. Pre-clerkship students will be encouraged to observe pre-rounding, work rounds, afternoon rounding, performing admission H/Ps, observe inpatient consults, call, as well as other activities such as observing procedures and interfprofessional team meetings. M4 facilitators will be responsible for contacting hi sor her inpatient team prior to the scheduled session to obtain permisison for a pre-clerkship student to join the team for that morning, aftenroon or evening. M4 student must communicate with Pre-clerkship student about obtaining any site requirements prior to the near peer experience.

The preparatory course is offered in June or July with clinical skills session beginning mid- August and extending through late-April. Small groups are coordinated with the M1 and M2 schedules and observant of vacation time. Most sessions are held on Tuesday or Thursday afternoon in the Sentara Center for Simulation and Immersive Learning (SCSIL). By meeting the requirements of the course the student will accrue two weeks of M4 credit. Students selected as near peer facilitators will meet with Dr. Erika Rhone for a separate meeting prior to the start of the semester.

Other Information: Students must be able to attend one of the two training sessions and participate in at least two-thirds of the small group sessions that span the academic year.

Course Objectives

The experience offers students a chance to develop educational skills that will become increasingly important during their post graduate training and careers. It also provides them an opportunity to contribute to the education of their fellow students.

Course Specifics

Report First Day	Dates of small group facilitation training will be emailed to students in approximately May or June by Malissa Edwards; including details of time and location.
Student Efforts	Total of 26-30 contact hours plus prep and follow-up time, although students are encouraged to participate in additional sessions. Please note that in order to receive course credit, 50% of required contact hours must be completed during the first semester. Students must also be able to attend the required training prior to facilitating sessions.
Evaluation	Based on attendance and faculty/student feedback
Additional Physicians Participating in Teaching	Clinical Skills faculty small group facilitators; final list to be determined at the beginning of the academic year

Site Compliance

Hospital 1: Non-hospital experience

ITD440: Community-Engaged Capstone

Category: Required

Course Information

Course Director	Don Robison, PhD Jason Dukes, MD	**Period Offered**	All Blocks
		Duration	Longitudinal for 2 weeks credit
Location	EVMS	**# of Students**	N/A
Main Contact	Don Robison, PhD robisodg@evms.edu 757-446-0378	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	Completion of M3 year

Course Description

Community-Engaged Capstone is designed to synthesize the community-engaged learning (CEL) experiences, especially those related to the social determinants of health and also fulfill the requirement for producing scholarly work. Most of the student effort will be asynchronously stimulated through Blackboard (with instructions and templates provided). The main Capstone product is a team-produced poster. The course requirement can also be fulfilled by presenting at a peer-reviewed conference, publishing in a peer-reviewed journal, or submitting a poster of a current work. Students must coordinate with the CEL

On Capstone Day, in late April, students will be required to attend a Capstone Poster Session open to the entire EVMS community, and those served by the students' longitudinal service. This event will take place in the Community-Engaged Learning warehouse. Students will also be afforded an opportunity to sign the community-oriented physician pledge that is painted on the wall of the warehouse.

Course Objectives

1. With team of 7 or fewer students in a single CEL initiative, develop poster in accordance with Capstone Poster development guidelines that effectively synthesizes the longitudinal service discoveries.
2. Reflect, list, and defend the attributes and professional choices of an effective community-oriented physician.
3. Define the population served by the student's CEL initiative.
4. Objectively describe the entering problem for the CEL initiative (i.e., any relevant quantitative or qualitative information). [Define metrics]
5. In writing, given a CEL initiative focus community, describe the magnitude of impact of environmental issues, human costs, and benefits for the most frequently occurring health concerns of the focus community.
6. Identify and define health disparities and inequities within the CEL served population.
7. Describe social justice implications of health disparities or inequities within the CEL served population.
8. Given a community-engaged learning context, reflect and list a health professional's responsibilities to the focus community, and then defend the reasoning behind each item on the list.

Course Specifics

Report First Day Contact course director

Student Efforts
0% of time inpatient setting
0% of time in trauma/ICU
0% of time in outpatient setting

0 hours/week of direct patient care
36 activity hours

Evaluation Multiple evaluation and feedback mechanisms as detailed in the syllabus including a poster project (75%), summary report (20%) and Blackboard reflections (5%).

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Non-hospital experience

ITD435: Women's Health

Category: Elective

Course Information

Course Director	James Dixon, MD	**Period Offered**	All Blocks
Location	Dept. of Internal Medicine, Andrews Hall	**Duration**	Longitudinal for 4 weeks credit
Main Contact	Yolanda Arriaga arriagym@evms.edu 757-446-8910	**# of Students**	10 spots
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

This M4 longitudinal elective is designed to further understanding of and develop practical approaches to several non-reproductive women's health medical issues. The elective will be most applicable to M4s who will train in Family Medicine, Internal Medicine or OB/GYN. Students will complete this one month elective over several months, September to March. Students will be provided a study guide and reading material in advance of each topic discussion. Students can participate in the topic discussion through the use of Blue Jean software when they are on away rotations. Discussion sessions are scheduled with the student's need to be interviewing and rotating on debut rotations in mind. Participants will prepare for and complete four of the five course topics. Clinical questions that introduce the discussions will be obtained from a variety of sources including the American College of Physicians Medical Knowledge Self-Assessment Program, the New England Journal's case based clinical discussions, and the Annals of Internal Medicine Grand Rounds discussions. Participants will advance their clinical knowledge of common issues in women's health by taking advantage of review articles and examining pertinent established and new literature. Guest faculty will occasionally join in the discussions.

Course Objectives

Breast Density:
- Understand the implications of the various mammogram breast density categories on breast cancer risk and mammographic sensitivity
- Be equipped to counsel patients on the impact of increased breast density as one of several breast cancer risk factors
- Appreciate Dr. Nancy Capello's work and the evolving requirement that radiologists include breast density and lifetime breast cancer risk in their mammogram report
- Learn how to estimate breast cancer risk using various prediction models and appreciate model limitations

Breast Cancer Prevention Medicines:
- Appreciate the expectations the USPSTF has of primary care providers to counsel regarding breast cancer prevention medicines (BCPM)
- Learn how to use the Breast Cancer Risk Assessment Tool to calculate breast cancer risk and review the various thresholds at which BCPM benefit would outweigh risk
- Use pictographs to portray BCPM risk and benefit in the patient counseling process

Menopause Symptoms:
- Understand the implications of Bernadine Healy, MD's work and the NIH Revitalization Act of 1993
- Appreciate the impact of the Women's Health Initiative, then and now, and discuss where the pendulum sits as it pertains to treating menopausal symptoms with hormone replacement therapy (HRT)
- Gain comfort assessing the risks and benefits of hormone replacement therapy, and the efficacy of SSRIs and non-hormonal therapies for the treatment of symptomatic menopause
- Develop an approach to treating the genitourinary syndrome of menopause utilizing topical estrogen and selective estrogen receptor modulators.
- Become familiar with the MenPro app to assist with making decisions about HRT

Osteoporosis:
- Be familiar with the impact (cost, morbidity, and mortality) of osteoporosis in the United States
- Be comfortable using the FRAX tool to estimate a patients' risk of a hip fracture and major osteoporosis fracture
- Understand the efficacy and side effects of osteoporosis medicine and put them in perspective relative to the risk of osteoporosis
- Be comfortable knowing when to initiate and stop bisphosphonates

Recent Women's Health:
- Participants will review an eclectic group of articles pertinent to the care of women
- Be comfortable with the concepts of the C-statistic and goodness of fit concept as they pertain to prediction models including, goodness of fit and the C statistic

Course Specifics

Report First Day	Contact Ms. Arriaga 2 weeks prior to the start of the elective for instructions	
Student Efforts	0% of time inpatient setting 0% of time in trauma/ICU 0% of time in outpatient setting	0 hours/week of direct patient care 0 hours/week of didactics 30 hours/week x4 weeks of asynchronous activities over months
Evaluation	Pass/Fail. Grading will be based on: 1) A quiz at the end of each topic discussion tied to the topic objectives is required. Quizzes will require the student to demonstrate comfort with certain facts and concepts. 2) Evidence of preparation for and engagement during discussion sessions.	
Additional Physicians Participating in Teaching	None	

Site Compliance

Hospital 1: Non-hospital experience

ITD439: Student Academic Clinician Educator Course — Category: Elective

Course Information

Course Director	A. Brooke Hooper, MD	**Period Offered**	All Blocks
Location	EVMS	**Duration**	Longitudinal for 2 weeks of credit
Main Contact	A. Brooke Hooper, MD hooperab@evms.edu 757-446-7439	**# of Students**	Unlimited
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Concurrent enrollment in medical education course

Course Description

The student ACE program is intended to support students who have interest in pursuing a career as an academic clinician educator, including as future resident teachers. The curriculum is based on the curriculum created by the Faculty for Tomorrow Task Force and consists of 6 professional development modules, a majority of which will be presented as self-paced online modules in an effort to provide schedule flexibility. Students will have an option to submit a personalized teaching philosophy statement for review and feedback that can be used during the interview season.

Workshop Topics:
1. July: Introduction/Overview of Teaching Philosophies
2. August: Small Group Facilitation
3. October: Social and Emotional Learning: The Learning Environment
4. December: Teaching: Adult Learning Theory
5. January: Feedback: Giving and Receiving Feedback
6. February: Reflective Practice in Teaching: Anti-Racist Medical Education
7. March: Effective Presentatations: Creating and Delivering Effective Presentations

Academic Experience:
Students will be require to participate in one or more of the following 2 week academic courses in addition to this course:
- Student Clerkship Chief Course
- Curriculum Development & Medical Education Course
- Clinical Skills Facilitator Course

March-April: Students will be required to prepare and deliver one 5 minute presentation on a topic of choice.
March-April: Students will be required to provide feedback to group members on presentation.

Students will receive a Student Academic Clinician Educator certficate after the successful completion of the course requirements.

Course Objectives

1. Explain the basic tenets of adult learning theory
2. Describe strategies for delivering effective feedback
3. Apply social and emotional learning to the everyday work of being a teacher
4. Describe techniques for effectively teaching a large or small group
5. Appraise the work of peers and receive feedback
6. Deliver an effective presentation

Course Specifics

Report First Day	Participating students are invited to attend an orientation session	
Student Efforts	0% of time inpatient setting 0% of time in trauma/ICU 0% of time in outpatient setting	0 hours/week of direct patient care 8 hours/week of didactics 10 hours/week of asynchronous activities
Evaluation	Workshop participation, final presentation	
Additional Health Professionals Participating in Teaching	Allison Knight, PhD; Amanda Quillin	

Site Compliance

Hospital 1: Non-hospital experience

ITD445: Methods and Logic in Translational Biology in Infection, Dermatology, or Reproductive Endocrinology

Category: Elective

Course Information

Course Director	Anca Dobrian, PhD William McPheat, PhD, MBA Frank Lattanzio, PhD	**Period Offered**	September 13 – October 22 or October 25 – December 3
		Duration	6 weeks
Location	EVMS	**# of Students**	6 spots
Main Contact	Anca Dobrian, PhD dobriadd@evms.edu 757-446-5607	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	Submission of CV and Statement of Interest

Course Description

The elective will consist of preparatory online modules on: drug discovery & development process; team building; regulatory & intellectual property, and commercialization. The estimated time to complete the module instruction is 9 hours followed by a formative assessment. The student will then participate in a team-based translational project together with research masters/PhD students to conceptualize and develop a theoretical product to meet an identified clinical need in a pre-specified clinical area. The students will have an opportunity to apply the scientific method for experimental design (pre-clinical and clinical) and the evaluation of research outcomes. For the 2021 course, the clinical areas will come from Dermatology, Infection or Reproductive Endocrinology. The team-based project starts on Day 1 with 3 hours of lectures from a clinician who is expert in the chosen clinical area and who will define various clinical gaps/needs from which the project team will select a focus for their project. The project team will discuss their translational idea with the clinician and then work up their proposal with guidance as required from faculty experts in biology, drug discovery/medical devices, regulatory, intellectual property, statistics, clinical trials and commercialization. An assigned Faculty Mentor (one of the course Co-Directors) will help keep the team on track. The goal for the project team is, through a translational biology team-based approach, to propose a novel solution to a particular clinical need and to outline the preclinical and clinical steps their proposal would follow to take their idea through clinical trials and onto the market. The teams will complete their project by submitting a 6-page written proposal and each team will make a 15-minute oral "pitch" and defense of their idea and process to a panel of faculty experts including the clinician, research and industry scientists. Both the written proposal and the oral presentation will be graded, and the students also evaluated by the faculty mentor and their team peers for their performance as a member of a multi-disciplinary team. At the recommendation of the faculty panel, the student and their team will have the option to develop the project into a peer-reviewed publication (eg. review, commentary, opinion paper).

Course Objectives

1. Demonstrate an understanding of the basic and clinical sciences necessary for medical practice
2. Demonstrate a basic understanding of medical research principles.
3. Use information systems to optimize care delivery and improve outcomes.
4. For a given medical problem use evidence-based medicine principles to select the best diagnostic and therapeutic plans.
5. Function effectively as a member of the health care team, respecting the roles and skills of other team members, communicating appropriately and working effectively within the team.
6. Demonstrate a recognition of one's own limitations and a commitment to professional growth.

Course Specifics

Report First Day	Course will be held online unless otherwise notified.	
Student Efforts	0% of time inpatient setting 0% of time in trauma/ICU 0% of time in outpatient setting	0 hours/week of direct patient care 3 hours on Day 1 only of didactics 10h group, 8h independent hours/week of asynchronous activities
Evaluation	Non-clinical assessment	
Additional Physicians Participating in Teaching	1 physician per project– to be named when topics are confirmed	

Site Compliance

Hospital 1: Non-hospital experience

ITD446: Student Clerkship Chief

Category: Elective

Course Information

Course Director	A. Brooke Hooper, MD Allison Knight, PhD
Location	EVMS
Main Contact	Rebecca Hastings hastinRS@EVMS.EDU 757-446-7111
Period Offered	All Blocks
Duration	Longitudinal for 2 weeks of credit
# of Students	18
Visiting Students	No
Night Call	No
Pre-Requisites/Restrictions	Application required

Course Description

The Student Clerkship Chief is a longitudinal experience for future leaders in academic medicine for fourth year medical students interested in teaching, mentoring, and advising. Student Clerkship Chiefs will receive training during Student Clerkship Chief Bootcamp in July on leadership, mentorship, accreditation requirements, and quality improvement in medical education.

Student Clerkship Chiefs will serve as primary near-peer mentors for clerkship students during each clerkship block. Two student clerkship chiefs will be selected for each clerkship and course (TIPS/Orientation, Family Medicine, Internal Medicine, Pediatrics, Psychiatry, Surgery, OB-GYN, Career Exploration, CFC Day/Well-Being.

Student Clerkship Chief expectations include: participation in Student Chief Bootcamp (1/2 day), At least one chief is expected to participate in the orientation for each clerkship or course, a mid-point check-in, and a final feedback session each block (in-person, video-conference, or recorded).

The Student Clerkship Chief will work with the course directors and clerkship directors to develop a quality improvement project for enhancing the clerkship experience and learning environment. These will be presented to the Clerkship Education Committee at the end of the course.

Student Clerkship Chiefs will also be invited to participate in Career Advising panels based on their availability.

Course Objectives

1. Demonstrate an ethical and professional attitude toward patients and their care.
2. Function effectively as a member of the health care team, respecting the roles and skills of other team members, communicating appropriately and working effectively within the team.
3. Demonstrate a recognition of one's own limitations and a commitment to professional growth.
4. Discuss important issues in the health care system beyond the practice site.

Course Specifics

Report First Day	Report to EVMS	
Student Efforts	0% of time inpatient setting 0% of time in trauma/ICU 0% of time in outpatient setting	0 hours/week of direct patient care 12 hours/week of didactics 6 hours/week of asynchronous activities
Evaluation	Completion of Student Clerkship Chief Bootcamp. Evaluation of clerkship quality improvement project by clerkship directors and course faculty.	
Additional Physicians Participating in Teaching	Gloria Too, MD; Andrew Moore, MD; Catherine Derber, MD; Aaron Mills; Md Jessica Burgess, MD; Rachel Burke, MD; Bruce Britton, MD; Mary Rubino, MD; Justin Petri, MD; Samantha Vergano, MD; Dionne Palmer, MD	

Site Compliance

Hospital 1: Non-hospital experience

ITD449: Medical Education: Curriculum Representatives Category: Elective

Course Information

Course Director	A. Brooke Hooper, MD Mily Kannarkat, MD	**Period Offered**	Continuously
		Duration	Longitudinal for 2 weeks of credit
Location	Virtual	**# of Students**	6
Main Contact	A. Brooke Hooper, MD hooperab@evms.edu 757-446-7439	**Visiting Students**	No
		Night Call	No
		Pre-Requisites/Restrictions	None

Course Description

Designed for students interested in academic careers and medical education. Students will utilize Bloom's Taxonomy, Kern's 6 -step approach to curriculum development, and curriculum mapping to review and optimize the learning experience at EVMS.

Students will participate in the development of a Student Curriculum Representative Sub-Committee of the Medical Education Committee. 2 representatives will be selected for each phase of medical education at EVMS (pre-clerkship phase, clerkship phase, and elective phase). At least one representative will participate in each corresponding monthly sub-committee meeting. Additionally, students will participate in the development of curricular objectives, curriculum mapping, and whole curriculum review.

Course Objectives

Upon completion of the course, participants should be able to:

1. List the 6 step approach to curriculum development
2. Apply the 6 steps of curriculum development
3. Utilize FOAMed resources to develop curriculum
4. Discuss evaluation and assessment methods
5. Develop curricular goals and objectives

Course Specifics

Report First Day Participating students are invited to attend an orientation session

Student Efforts

0% of time inpatient setting	0 hours/week of direct patient care
0% of time in trauma/ICU	12 hours/week of didactics
0% of time in outpatient setting	6 hours/week of asynchronous activities

Evaluation Participation in sub-committee meetings and course development

Additional Physicians Participating in Teaching None

Site Compliance

Hospital 1: Non-hospital experience

ITDTBD: Sexual and Gender Minorities Medicine

Category: Elective

Course Information

Course Director	Melinda Penn, MD	**Period Offered**	Blocks 1, 4, 7, 11
Location	Tidewater Women's and LGBT Center CHKD Endocrinology SNGH Endocrinology CAN Community Health Clinic (LGBT Life Center)	**Duration**	2 or 4 weeks
		# of Students	1 per block
		Visiting Students	No
Main Contact	Steven K. Barnett, MD sbarnett@cancommunityhealth.org 757-346-5770	**Night Call**	No
		Pre-Requisites/Restrictions	None

Course Description

This elective will provide exposure to the fields of gender and sexual health through experiences in a variety of clinical, community-based and academic settings. The learner will rotate at a variety of sites, including EVMS Endocrinology, CHKD Endocrinology, The LGBT Life Center Clinic (CAN Community Health Clinic) and Tidewater Women's and LGBT Center. They will work directly with providers who are practicing both primary and specialty care for our LGBTQIA+ community members, and in doing so, the student will learn how to provide safe, affirming care to these patients. Specific roles and responsibilities will vary based on the site, but the learner may be asked to see patients on their own before the provider, present a patient on their own, write a concise SOAP note and communicate the plan to the patient. Of note, the learner may also be exposed to pregnancy terminations, but can opt out if that is not something they feel comfortable observing.

Course Objectives

By the end of the rotation, the learner will:

1. know the differences between sex, gender identity, gender expression and sexual orientation,
2. feel confident providing care to LGBTQIA+ patients,
3. feel confident introducing themselves with their pronouns and asking patients about their pronouns,
4. be able to recognize the specific barriers to care that LGBTQIA+ patients face,
5. know the community resources available to LGBTQIA+ patients and their families and
6. have a basic understanding of the medical and surgical management options available for transgender and gender non-binary patients.

Course Specifics

Report First Day Contact course director

Student Efforts

0% of time inpatient setting	16+ hours/week of direct patient care
0% of time in trauma/ICU	0 hours/week of didactics
100% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation Students will be evaluated based on their engagement in the various clinics. Specifically, they will be evaluated by the Course Director with input from the other providers they interacted with. They will be evaluated based on their ability to: perform a history and physical, formulate an assessment and plan, identify social factors contributing to the patients' presentation, and form trusting relationships with their patients.

Additional Physicians Participating in Teaching David Peters, MD; David Lieb, MD; Steven Barnett, MD

Site Compliance

Hospital 1: Children's Hospital of the King's Daughters
Hospital 2: Sentara, Norfolk General

ITD447: Global Health Training and Reflection

Category: Elective

Course Information

Course Director	Alexandra Leader, MD, MPH	**Period Offered**	All Blocks
Location	EVMS	**Duration**	Longitudinal for 4 weeks of credit **Students may request 2-week elective credit experience pending Course Director's approval
Main Contact	Lydia Cleveland, MPH clevellr@evms.edu 757-446-7148	**# of Students**	15
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Pre-approval through Global Health

Course Description

Students will engage in a longitudinal global health training experience to include on-campus and online didactic sessions on the following themes: global health principles and practice, global health research and social media ethics, cultural humility, wellness in global health, professionalism, and safety and security. Students will read articles and texts from course reading list. Students will also complete multi-tiered global health competency writing assignments and reflective writing assignments, as well as submit a written debrief and participate in debrief sessions upon conclusion of the elective or the off-campus/international global health training experience. Students will be encouraged to submit a written reflection piece to a global health writing forum and/or an op-ed piece for a newspaper or scholarly journal.

Course Objectives

1. Describe major causes and determinants of morbidity/mortality worldwide and principal public health efforts to reduce disparities in global health.
2. Describe how different health care models and global trends in healthcare practice/commerce/culture contribute to quality and access to healthcare worldwide.
3. Describe how travel and trade contribution to the spread of communicable and chronic diseases, and how cultural context influences perceptions of health and disease.
4. Exhibit and understand values of inter-professional collaboration and cultural humility.
5. Demonstrate an understanding of and an ability to navigate common ethical challenges that arise while working within diverse economic, political and cultural contexts. And while working with vulnerable populations in low resource settings.
6. Demonstrate an awareness of local and national codes of ethics relevant to one's working environment.
7. Demonstrate integrity, regard and respect for others in all aspects of professional practice.
8. Demonstrate a basic understanding of the relationship between health, human rights, and global inequities.

Course Specifics

Report First Day Arrange with EVMS Global Health department.

Student Efforts

0% of time inpatient setting	0 hours/week of direct patient care
0% of time in trauma/ICU	3.5 hours/week of didactics
0% of time in outpatient setting	18 hours/week of asynchronous activities

Evaluation Students will be evaluated by Global Health leadership team based on consistency and quality of participation in Pre-Departure training sessions, as well as completion and quality of online assigned reading and writing.

Additional Physicians Participating in Teaching Students will interact with Dr. Judith Brown during Cultural Humility session, Dr. Allison Knight during Global Health Wellness Session, and Dr. Robert Dana Bradshaw during research methods and community-based research training.

Site Compliance

Hospital 1: Non-hospital experience

ITD432: Medical Spanish

Category: Elective

Course Information

Course Director	Alexandra Leader, MD, MPH	**Period Offered**	All Blocks
Location	EVMS	**Duration**	2 or 4 weeks
Main Contact	Lydia Cleveland, MPH clevellr@evms.edu 757-446-7148	**# of Students**	15
		Visiting Students	No
		Night Call	No
		Pre-Requisites/Restrictions	Must be participant in Medical Spanish CEL track or EVMS Global Health programs

Course Description

In the current setting of COVID-19 travel restrictions and with a focus on global health competencies in local settings, the goal of this Medical Spanish elective is to give student participants of the EVMS Medical Spanish and Global Health programs the opportunity to immerse themselves in medical Spanish language study through immersive virtual medical Spanish tutoring with our partners at Pop Wuj language school in Guatemala.

Course Objectives

1. Interpersonal and Communication Skills: Participants will broaden their ability to communicate effectively wilt patients from Spanish-speaking cultures in a medical selling.

Course Specifics

Report First Day Tutoring schedule arrangements to be made prior to elective

Student Efforts

0% of time inpatient setting	0 hours/week of direct patient care
0% of time in trauma/ICU	0 hours/week of didactics
0% of time in outpatient setting	0 hours/week of asynchronous activities

Evaluation 100% Medical Spanish classroom and case-based learning.

Additional Physicians Participating in Teaching EVMS medical spanish faculty; Pop Wuj community partners

Site Compliance

Hospital 1: Non-hospital experience